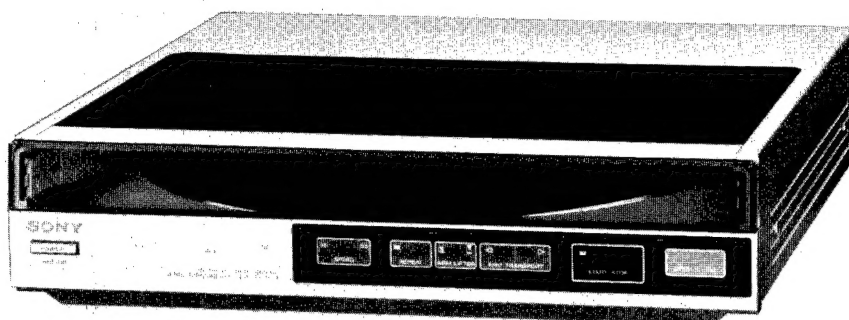


PS-FL77

*US Model
Canadian Model
AEP Model
UK Model
E Model*



STEREO TURNTABLE SYSTEM

SPECIFICATIONS

Turntable

Platter	29 cm (11½ in.), aluminum-alloy diecast
Motor	Linear torque BSL (brushless and slotless) motor
Drive system	Direct drive
Control system	FG servo control system
Speed	33⅓ rpm, 45 rpm
Wow and flutter	0.03% (WRMS)*, 0.035% (WRMS) ±0.045% (DIN)
Signal-to-noise ratio	75 dB (DIN-B)
Automatic system	Lead-in, return, reject, repeat, record size selection

Cartridge XL-250G


Type	Moving magnet type
Frequency response	10 Hz to 20,000 Hz
Channel separation	23 dB at 1 kHz
Output voltage	5 mV at 1 kHz, 5 cm/sec., 45°
Load impedance	50 to 100 kilohms
Tracking force	1.0 to 1.5 g (1.25 g recommended)
Stylus	Sony ND-250G
Weight	6 g

— Continued on page 2 —


Tonearm

Type	Electronic tonearm, linear tracking
Pivot-to-stylus length	100 mm (4 in.)
Overall arm length	170 mm (6¾ in.)
Tracking error	±0.1°
Tracking force adjustment range	1.25 ±0.25 g
Cartridge	plug-in type, 6 g

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.



SONY®

SERVICE MANUAL

General

Power requirements AEP model: 220 V ac, 50/60 Hz
 UK model: 240 V ac, 50/60 Hz
 E model: 110 - 120 or 220 - 240 V ac ad-
 justable, 50/60 Hz

Po
 Power consumption 13 W

Dimensions

Approx. 355 × 88 × 370 mm (w/h/d)
 (14 × 3½ × 14⅝ in.)
 including projecting parts and controls
 Approx. 7.0 kg (15 lbs 7 oz), net
 Approx. 8.2 kg (18 lbs 2 oz), in shipping
 carton

Weight

0 dB = 0.775 V

FEATURES

Servo-controlled linear tracking tonearm

A linear tracking tonearm is designed to duplicate the movement of the head which cuts the record master.

Compared with a pivoted tonearm, a linear tracking arm has a very small tracking error (which means greatly reduced harmonic distortion) and almost no pressure on the inside wall of the groove (which means improved tracking ability and channel separation).

Biotracer electronic tonearm

The horizontal and vertical movement of the tonearm is monitored by the Biotracer's own sensors, and this information is transmitted to the tonearm by the tonearm's own linear motors to suppress resonance at low frequencies and to obtain the maximum signal-to-noise ratio.

A microprocessor controls three motors

The movement of the turntable, the tonearm and the turntable module is controlled by a microcomputer. When you press the START/STOP key, the module will close, the turntable will rotate and the tonearm will lower onto the record.

Fully automatic system

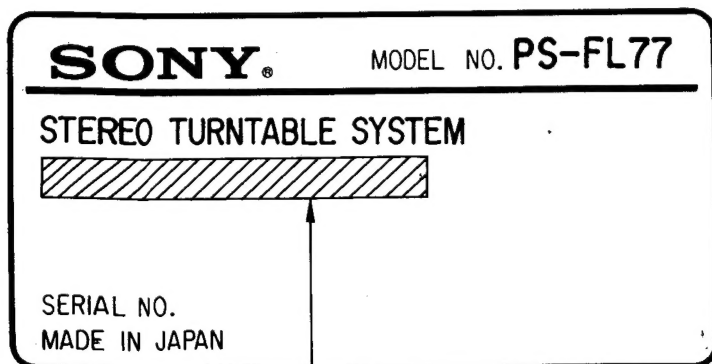
With the module closed, automatic record play and stylus up/down are operated by the "feather-touch" function key on the front panel. The record size is automatically set by a photo sensor system. If no record is on the turntable, the tonearm will not descend but will automatically return to the arm rest. A muting system activates when the tonearm is lifted and deactivates after the tonearm lowers onto a record so there is no need to turn the amplifier volume down every time a stylus is placed on a record.

NOTES ON REPAIR

- In this set, the voltage is applied to the power supplying line ($\pm 23V$) even if the POWER switch is turned OFF.

— When removing the bottom plate —

- When POWER switch (S4) turns ON with bottom plate removed, MD motor (M901) and the gear continue to rotate and they do not stop. But, it is not broken.
1. When CLOSE END switch (S3) on the switch board and POWER switch (S4) turn ON, the motor dose not begin to rotate.
 2. When CLOSE END switch is pressed, the motor stops even if the motor is rotating.
 3. When START switch (S502) is pressed, MD motor starts rotating. But, it stops if the disposition of 1. or 2. is performed.
 4. Release CLOSE END switch (S3) when MD motor stops rotating.

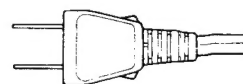
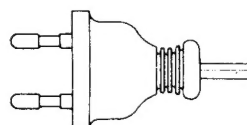


US, Canadian model: 120V 60Hz 13W
 AEP model: 220V 50/60Hz 13W
 UK model: 240V 50/60Hz 13W
 E model: 110-120V, 220-240V 50/60Hz 13W

— Power Cord —

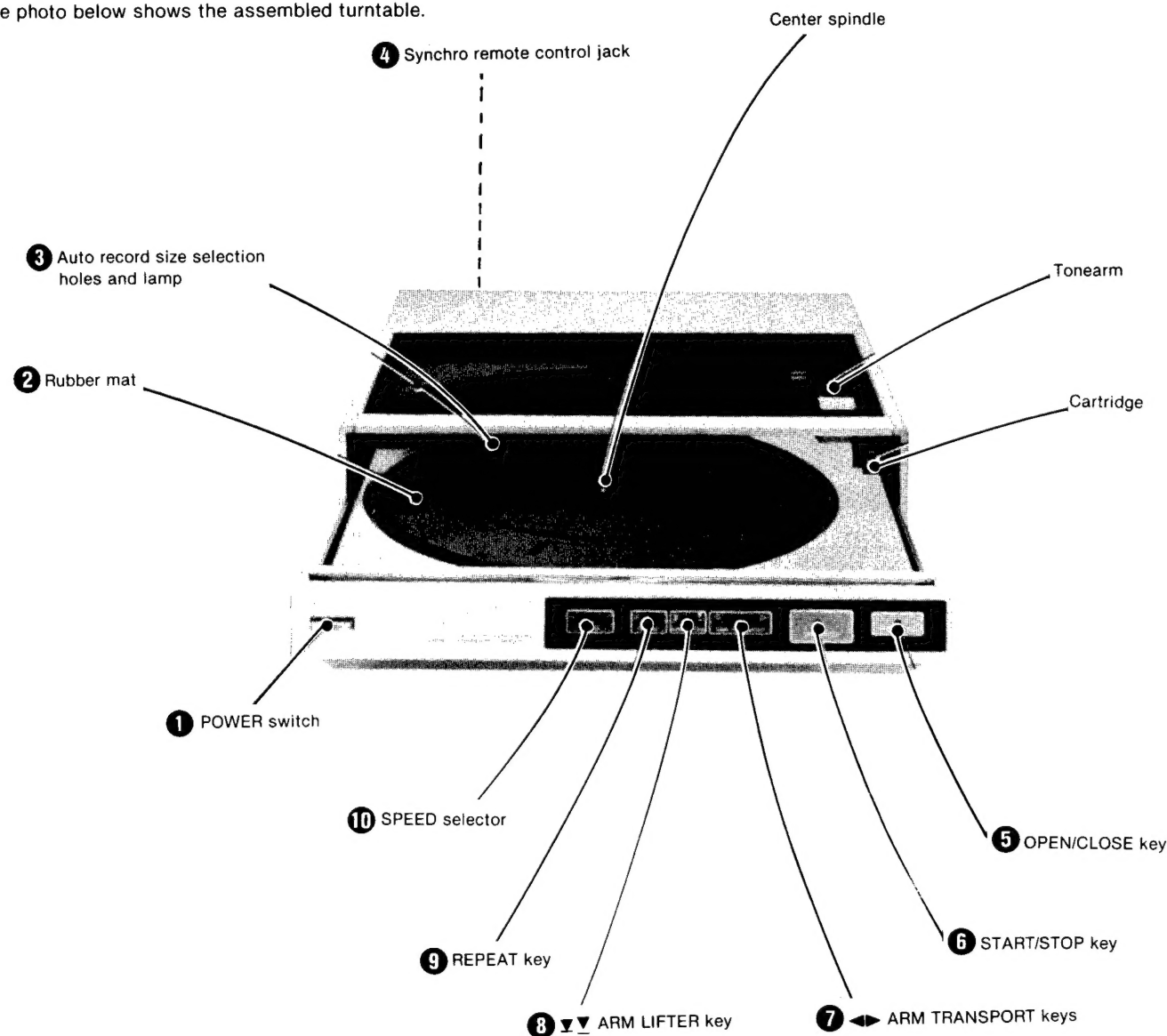
E1 model: euro-plug
 1-555-734-00

E2 model: parallel-blade plug
 1-551-473-31



LOCATION OF PARTS AND CONTROLS

The photo below shows the assembled turntable.



1 POWER switch

Press to turn on the turntable. To turn the turntable off, press it again.

2 Rubber mat

Place the rubber mat so that the holes for auto record size selection on the rubber mat and on the platter are matched correctly.

3 Auto record size selection holes and lamp

Record size is automatically selected by a beam transmitted from a lamp through the holes on the rubber mat and the platter to the photo detectors underneath the platter. When no record is on the platter, the tonearm will not lower onto the turntable.

4 Synchro remote control jack

Synchronized recording from disc to tape is possible on specified Sony cassette decks by using the optional RM-65 synchro remote control unit.

5 OPEN/CLOSE key

With one touch of this key the turntable module automatically opens for loading a record. With another touch the module automatically closes.

6 START/STOP key

Press to start the record playing. To stop during play, press it again.

7 ARM TRANSPORT keys

To move the tonearm inward, press the ◀ key, and to move outward, the ▶ key. The tonearm is raised and continues to move while the key is pressed. The tonearm will stop when the key is released. For fine adjustments, press and immediately release the appropriate key.

8 ARM LIFTER key

This key lifts and lowers the tonearm. When the tonearm is lowered, the turntable starts rotating.

9 REPEAT key

Press this key to repeat play. Repeat play continues until this key is pressed to release it. If the START/STOP key is pressed during repeat play, the tonearm returns to the arm rest and the turntable stops rotating.

10 SPEED selector

Press this key when a 45 rpm record is to be played. Press it again for a 33 $\frac{1}{3}$ rpm record.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

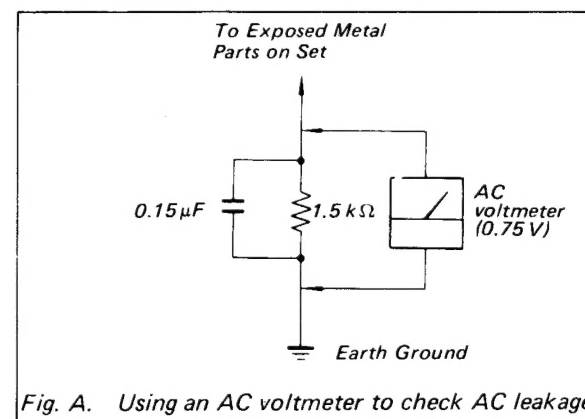
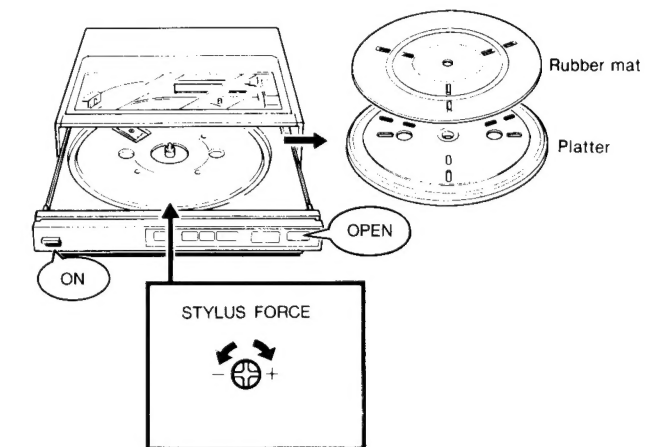


Fig. A. Using an AC voltmeter to check AC leakage.

TRACKING FORCE FINE ADJUSTMENT

The tracking force has been correctly adjusted at the factory. Make fine adjustment only when the tracking force is so light that the stylus skips grooves.

The tracking force adjustment opening is located on the motor board. Insert the supplied adjustment key and turn it clockwise (+) for heavier tracking force or counterclockwise (-) for lighter tracking force.



MAINTENANCE

Stylus

Before playing a record, clean the stylus with a soft brush. Brush the stylus from back to front. Never attempt to clean the stylus with your finger tip. If a fluid stylus cleaner is used, make sure not to moisten the stylus too much.

Cabinet

Clean the cabinet periodically with a soft dry cloth. If the stains are difficult to remove, use a cloth moistened with a mild detergent solution. Do not use solvents such as alcohol, benzene or thinner, since they will damage the finish.

Rubber mat

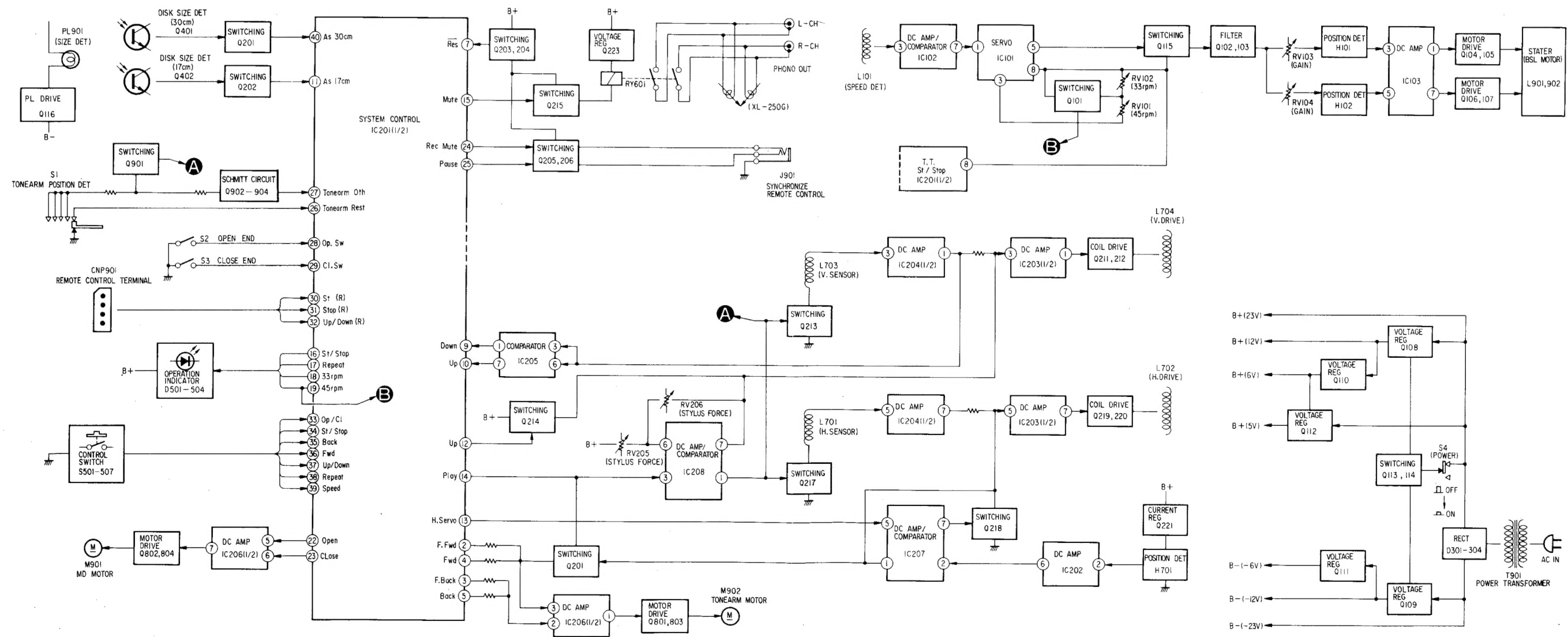
When the rubber mat becomes dirty, wipe it gently with a soft cloth slightly dampened with water.

Lubrication

The turntable requires no periodic lubrication. The motor shaft is lubricated at the factory for the life of the turntable.

SECTION 1 OUTLINE

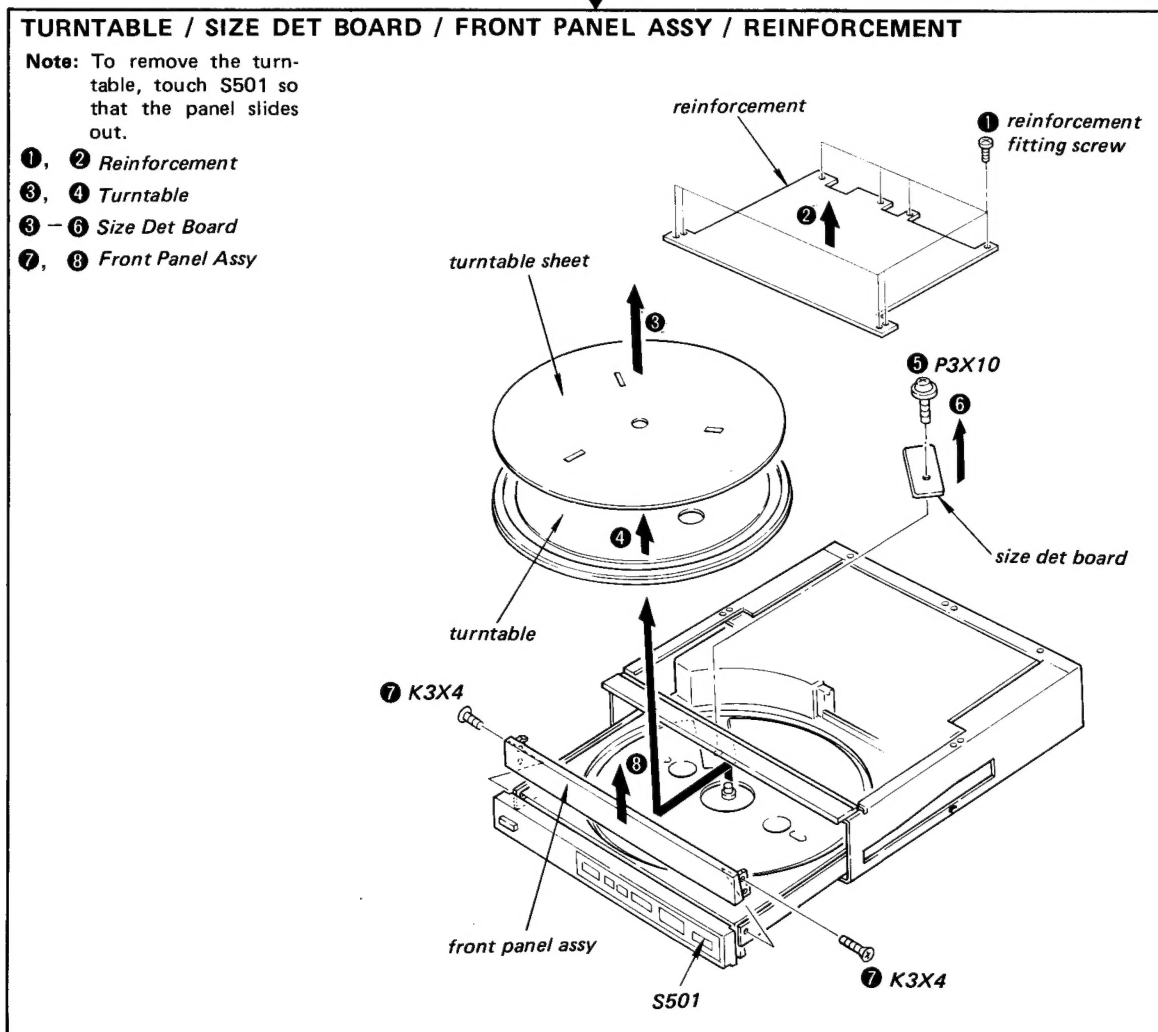
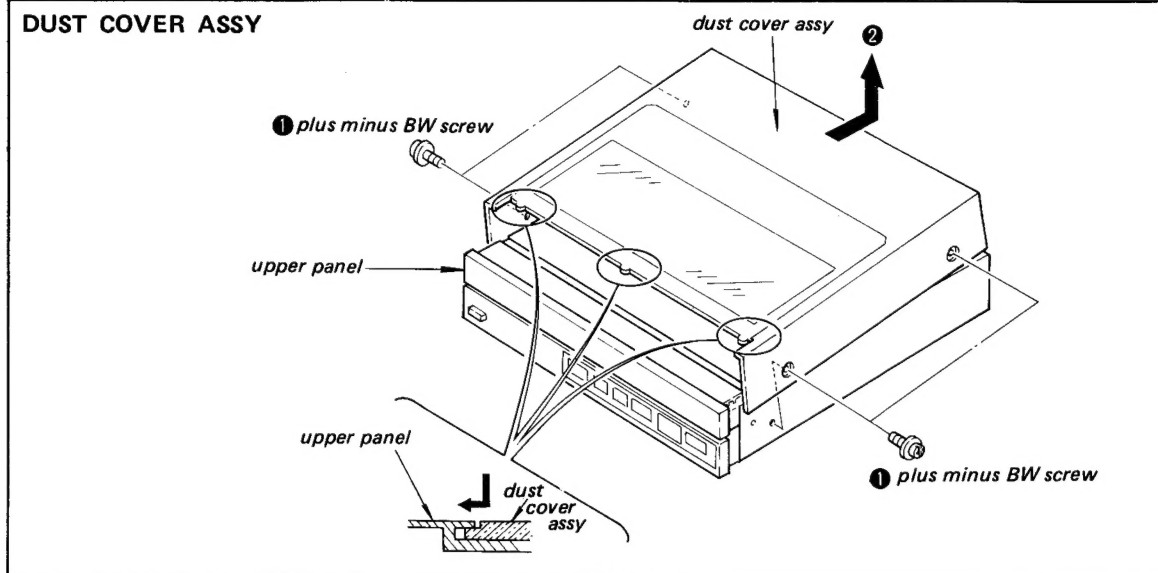
1-1. BLOCK DIAGRAMS



SECTION 2 DISASSEMBLY

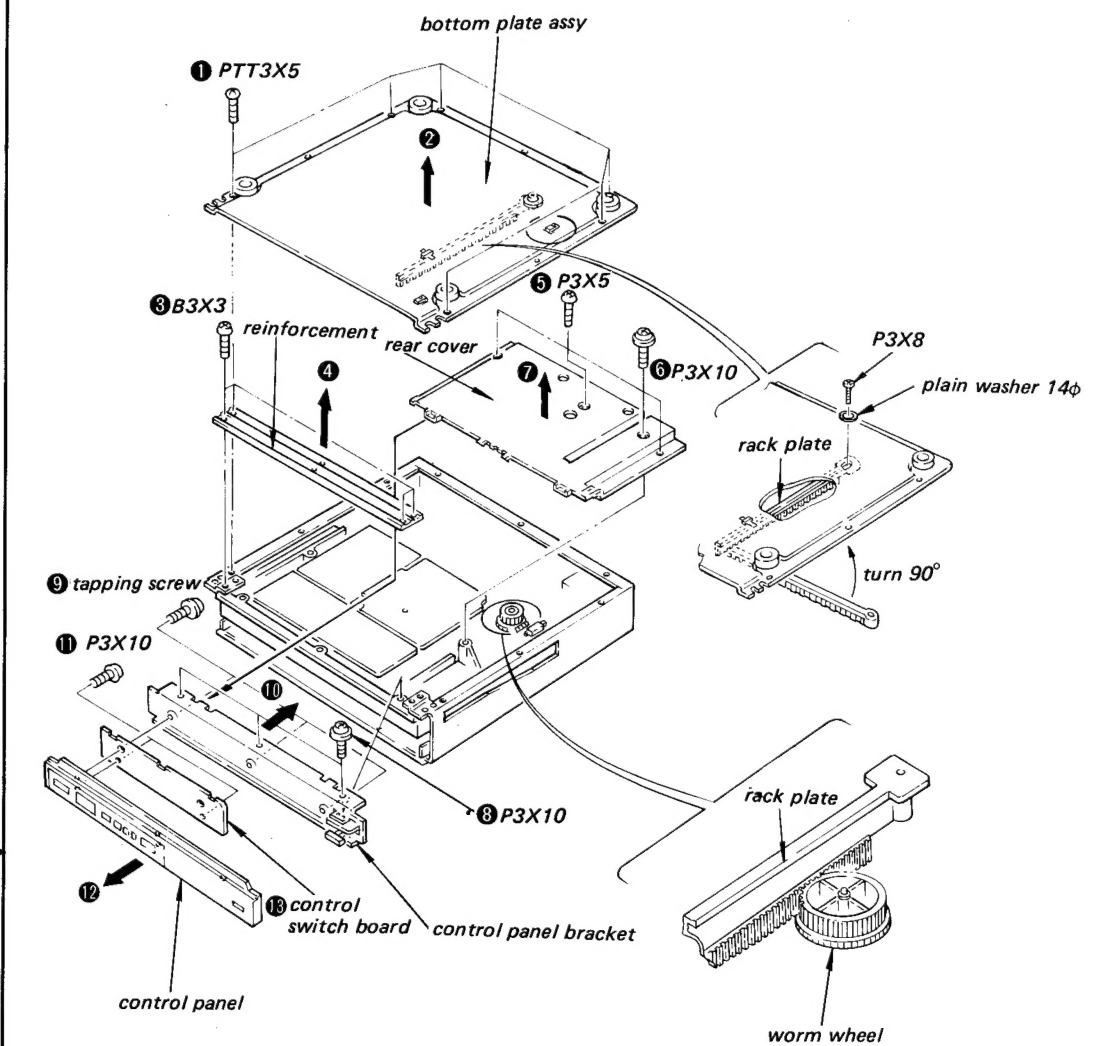
2-1. REMOVAL

- Follow the disassembly procedure in the numerical order given.
- In this set, the voltage is applied to the power supplying line ($\pm 23V$) even if the POWER switch is turned OFF.



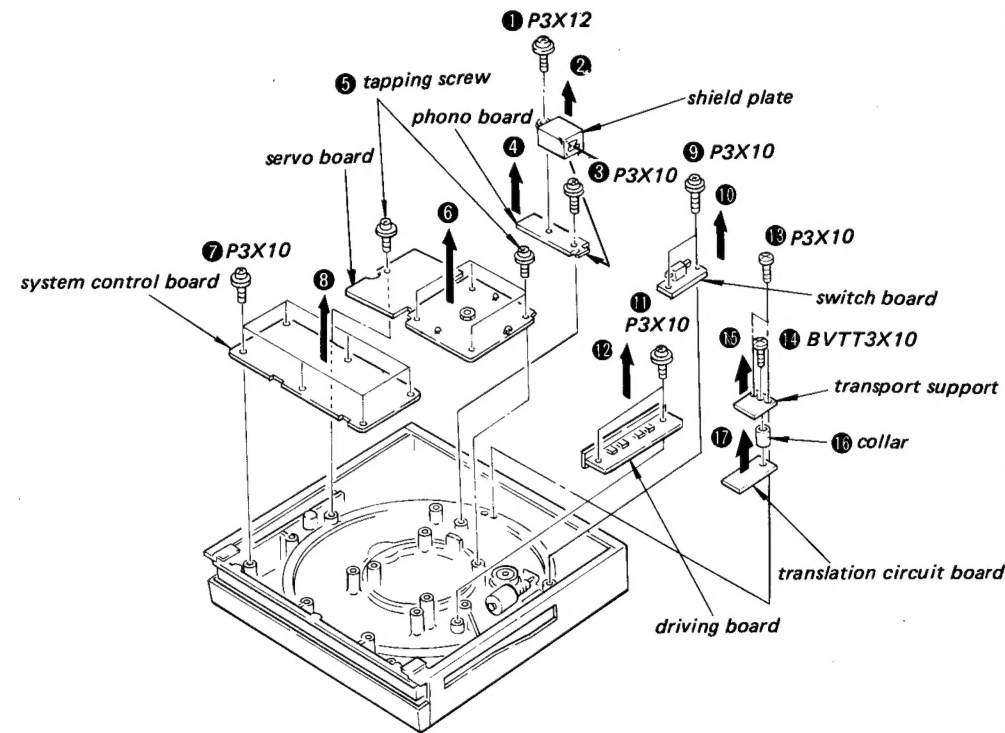
BOTTOM PLATE ASSY / REAR COVER / CONTROL PANEL / CONTROL PANEL BRACKET / CONTROL SWITCH BOARD

- 1, 2 Bottom Plate Assy
- 1 - 7 Rear Cover
- 3, 4, 8 - 12 Control Panel
- 3, 4, 8 - 10 Control Panel Bracket
- 3, 4, 8 - 13 Control Switch Board



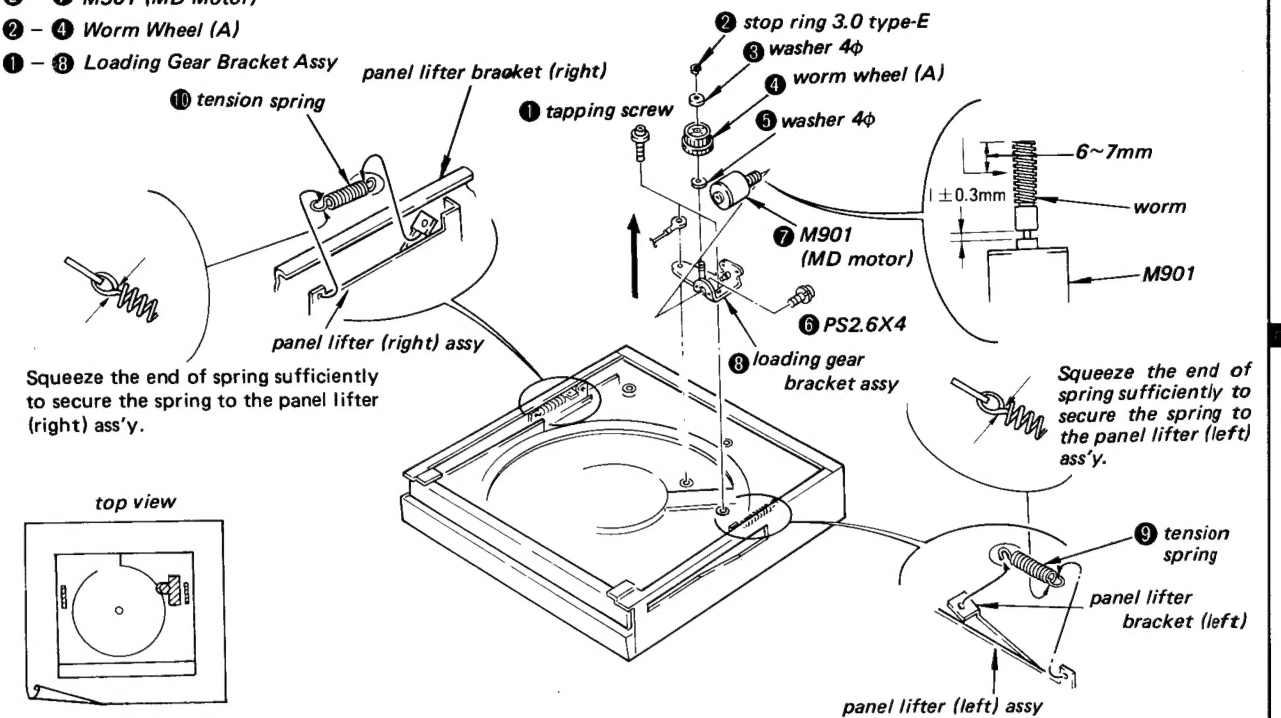
**PHONO BOARD / SERVO BOARD / SYSTEM CONTROL BOARD /
SWITCH BOARD / DRIVING BOARD / TRANSLATION CIRCUIT BOARD**

- 1 - 4** *Phono Board*
- 5, 6** *Servo Board*
- 7, 8** *System Control Board*
- 9, 10** *Switch Board*
- 11, 12** *Driving Board*
- 13 - 17** *Translation Circuit Board*



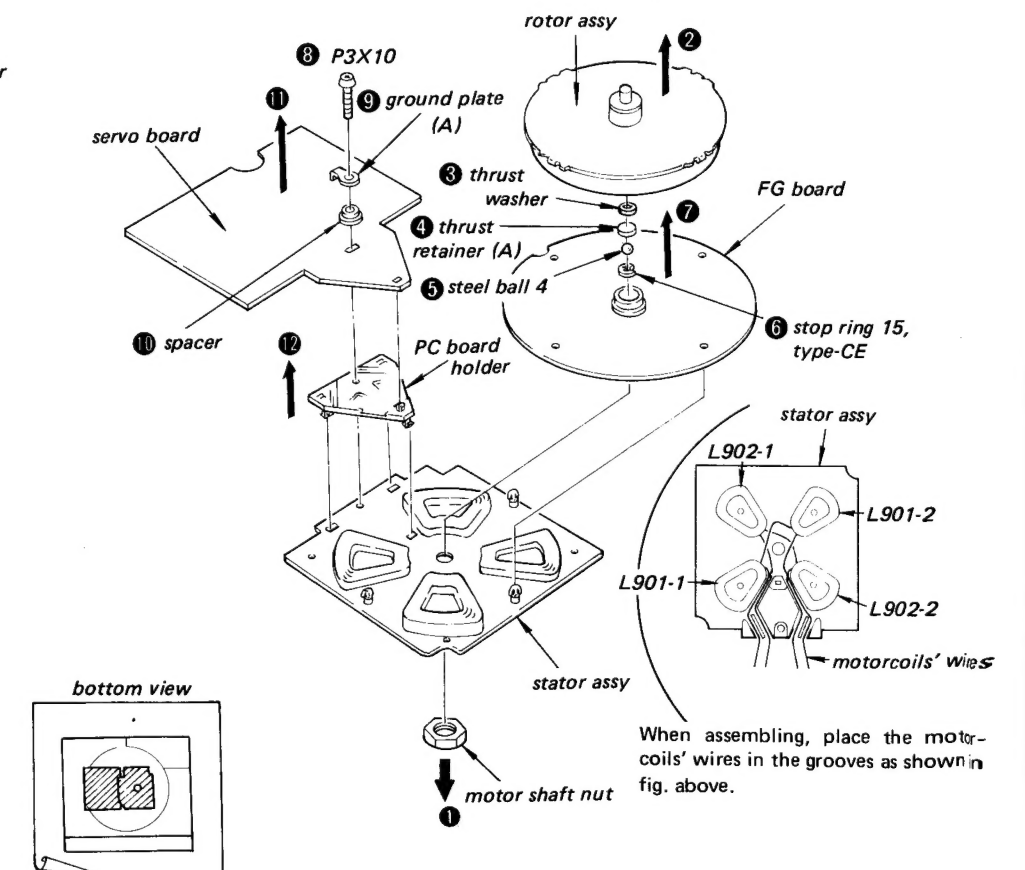
M901 (MD MOTOR) / WORM WHEEL (A) / LOADING GEAR BRACKET ASSY

- ② - ⑦ M901 (MD Motor)
② - ④ Worm Wheel (A)
① - ⑧ Loading Gear Bracket Assy



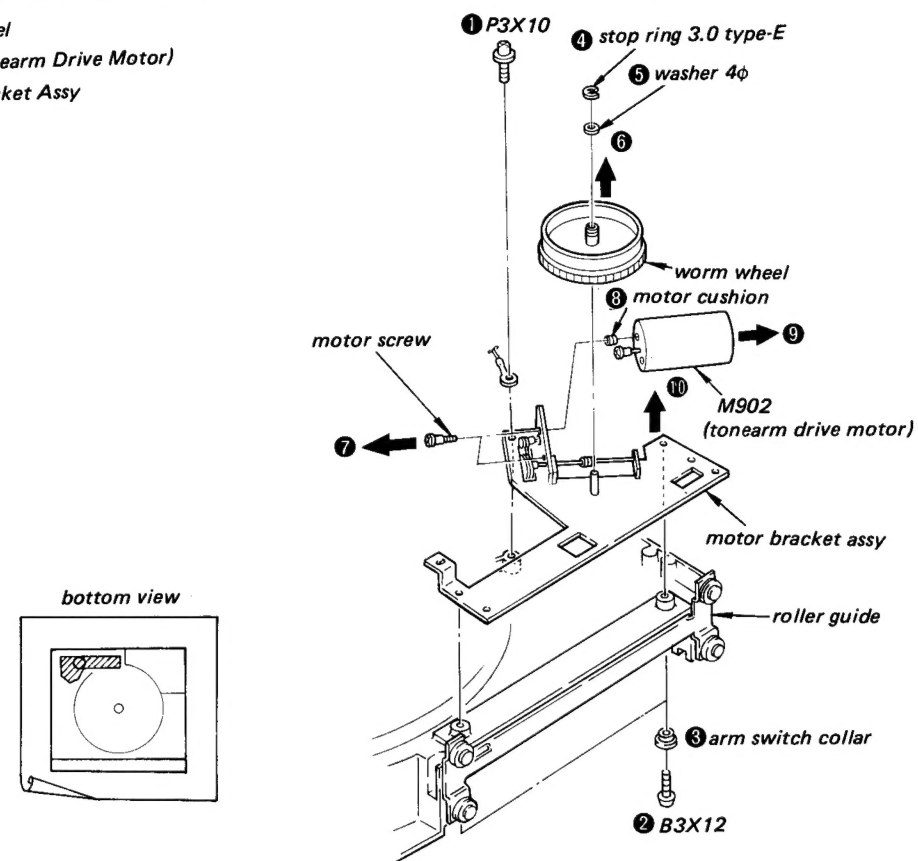
ROTOR ASSY / FG BOARD / SERVO BOARD / PC BOARD HOLDER

- ①, ② Rotor Assy
- ① - ⑥ FG Board
- ① - ⑩ Servo Board
- ① - ⑪ PC Board Holder



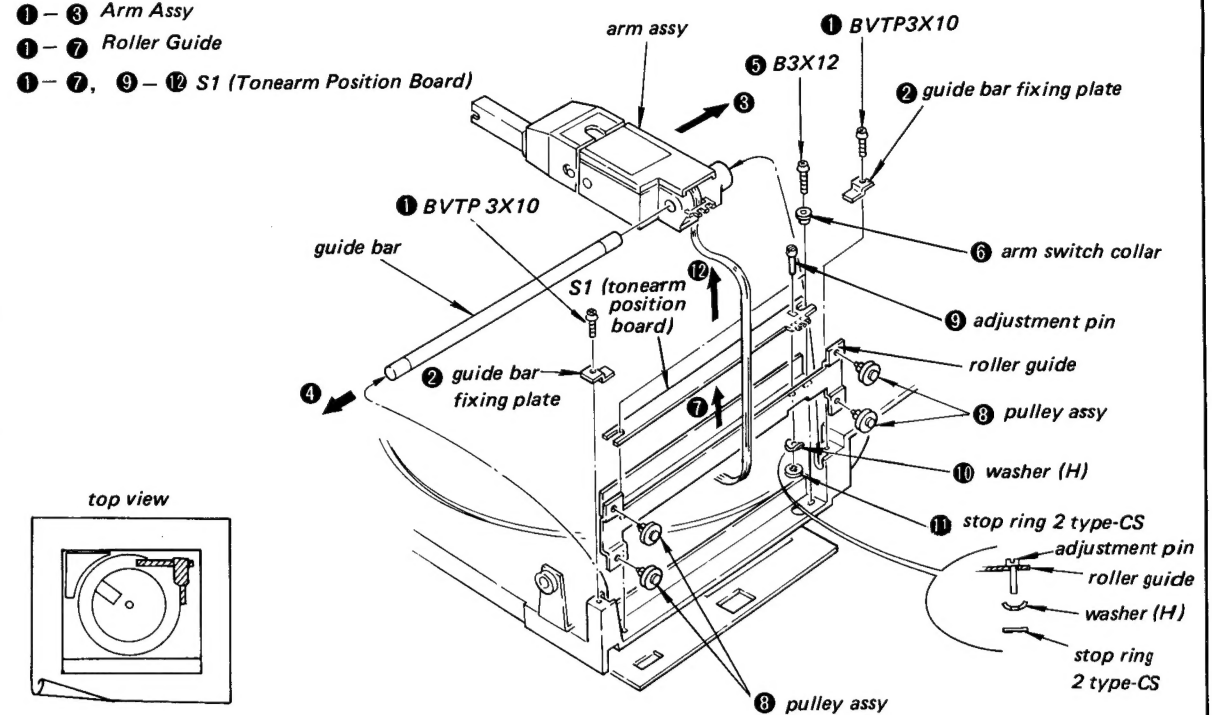
WORM WHEEL / M902 (TONEARM DRIVE MOTOR) / MOTOR BRACKET ASSY

- 4 - 6 Worm Wheel
7 - 9 M902 (Tonearm Drive Motor)
1 - 10 Motor Bracket Assy



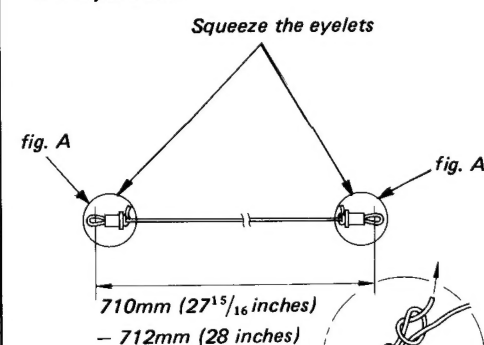
GUIDE BAR / ARM ASSY / ROLLER GUIDE / S1 (TONEARM POSITION BOARD)

- 1 - 4 Guide Bar
1 - 3 Arm Assy
1 - 7 Roller Guide
1 - 7, 9 - 12 S1 (Tonearm Position Board)

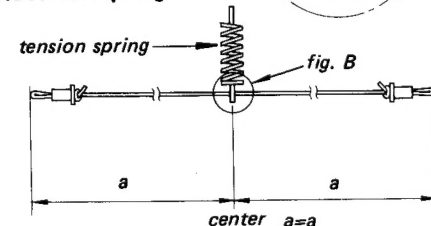


—Linear tracking cord stringing—

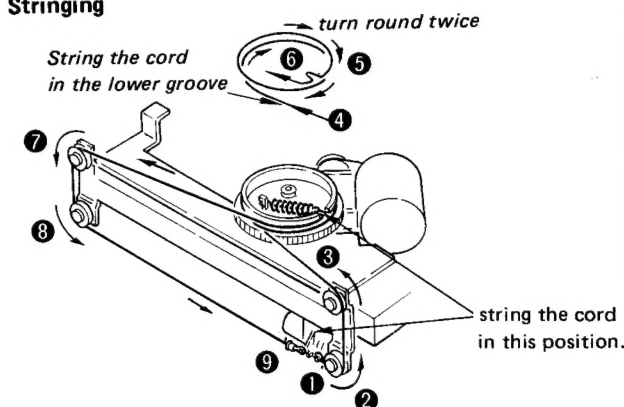
1. Preparation



2. Hook the spring



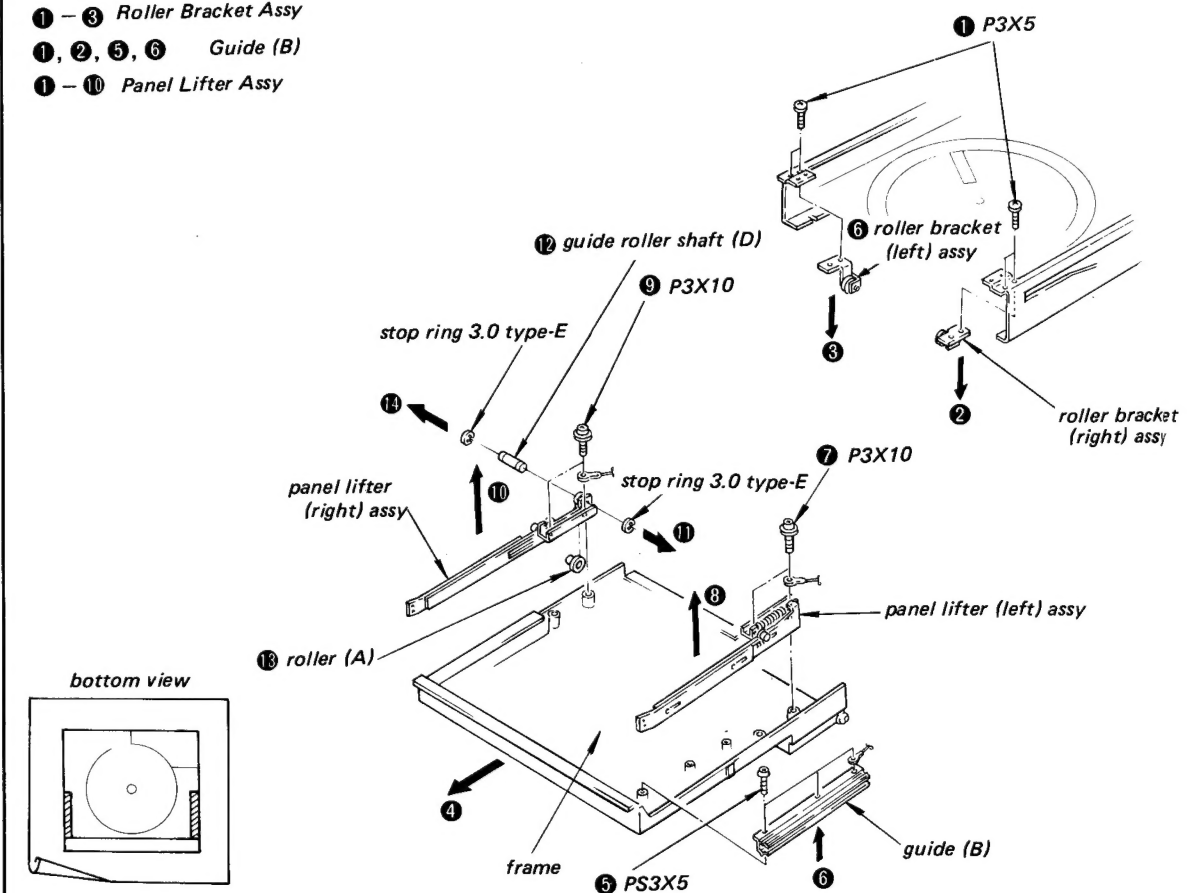
3. Stringing



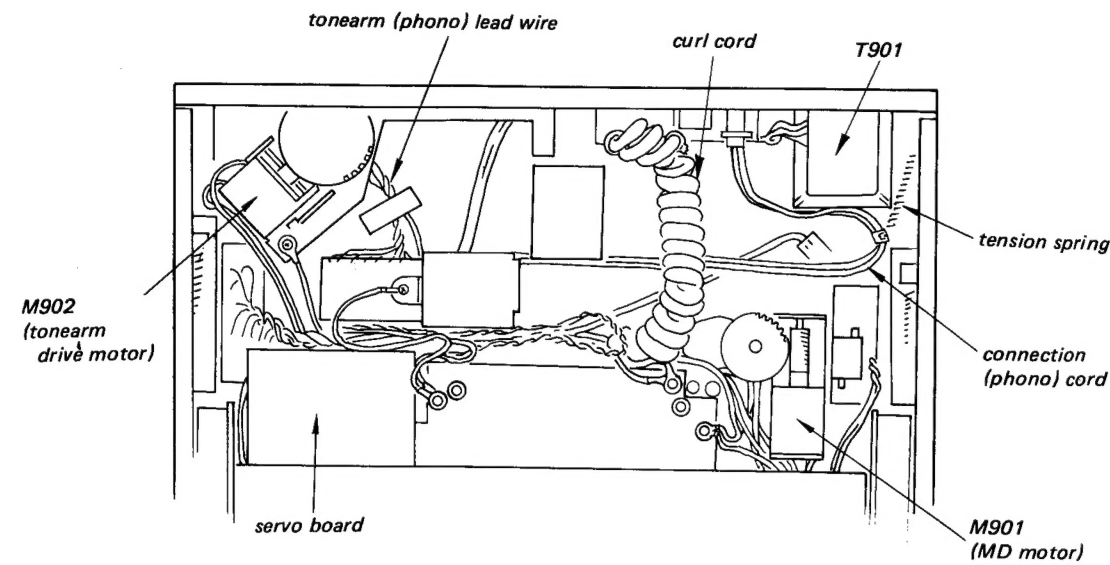
String the cord in the numerical order. Hook the loop to the boss on ① and (at the end on) ⑨.

ROLLER BRACKET ASSY / GUIDE (B) / PANEL LIFTER ASSY

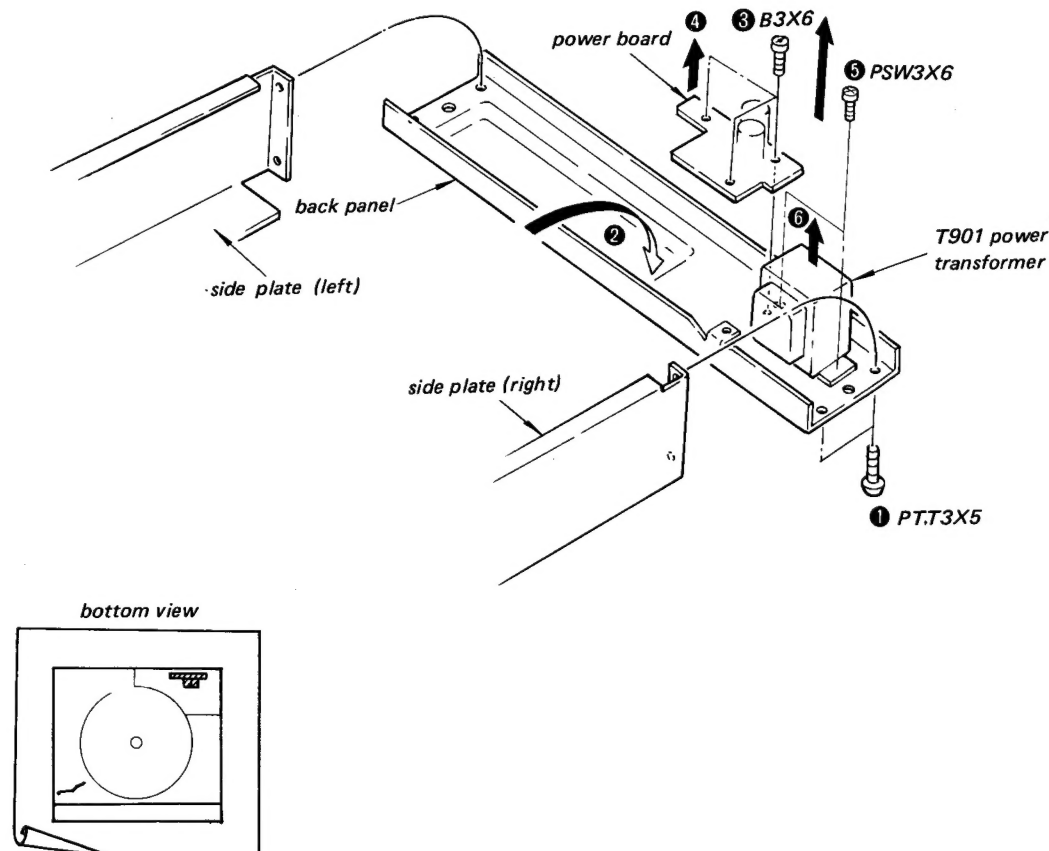
- 1 - 3 Roller Bracket Assy
1, 2, 5, 6 Guide (B)
1 - 10 Panel Lifter Assy



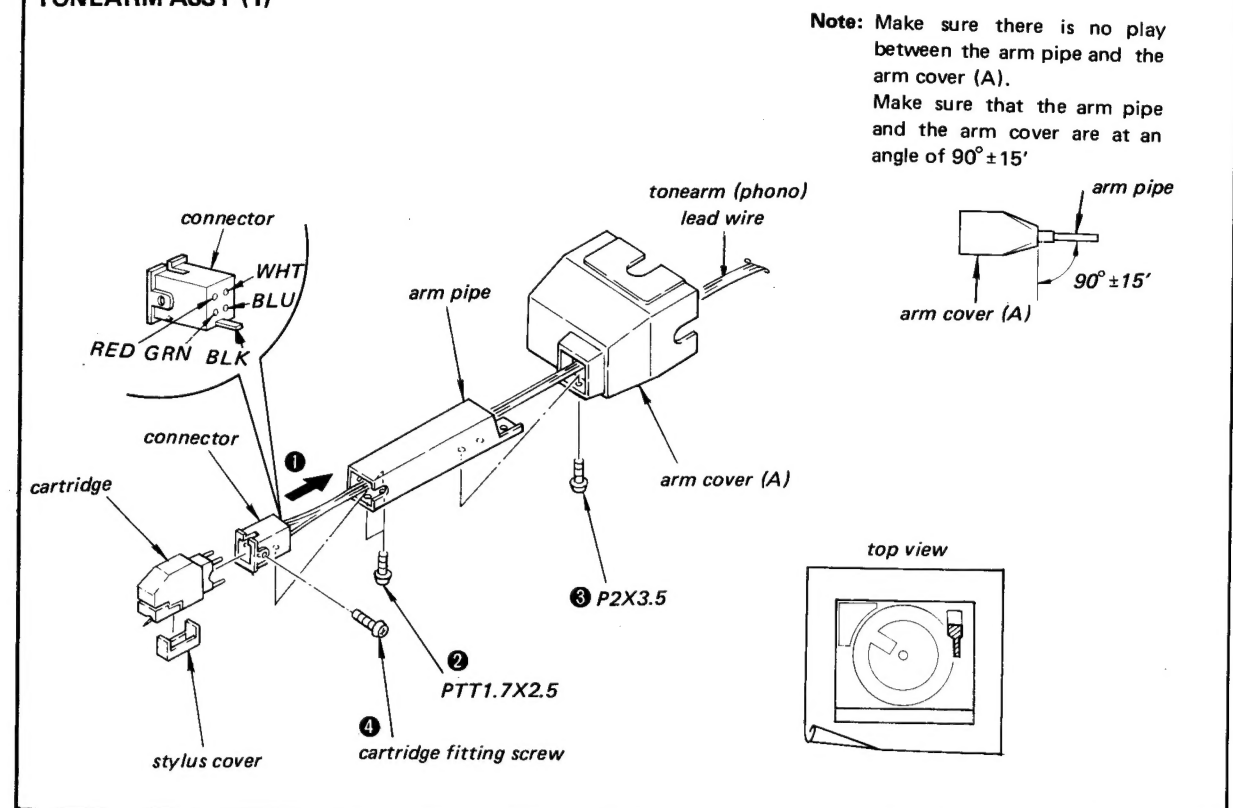
—Lead wires' position—



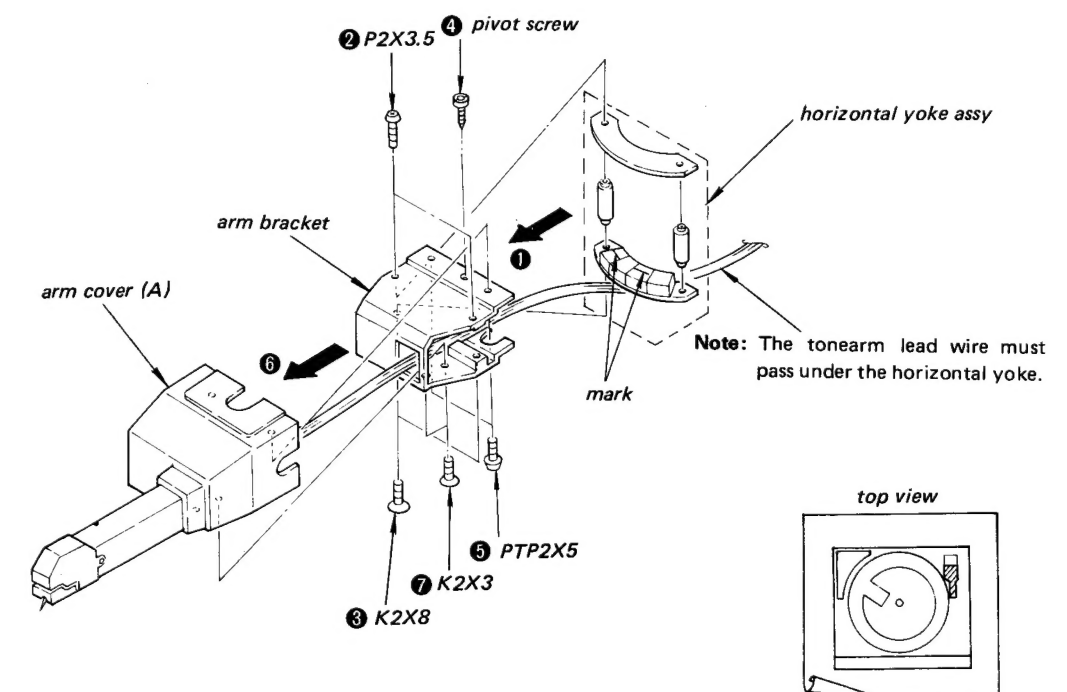
BACK PANEL/POWER BOARD/POWER TRANSFORMER



TONEARM ASSY (1)

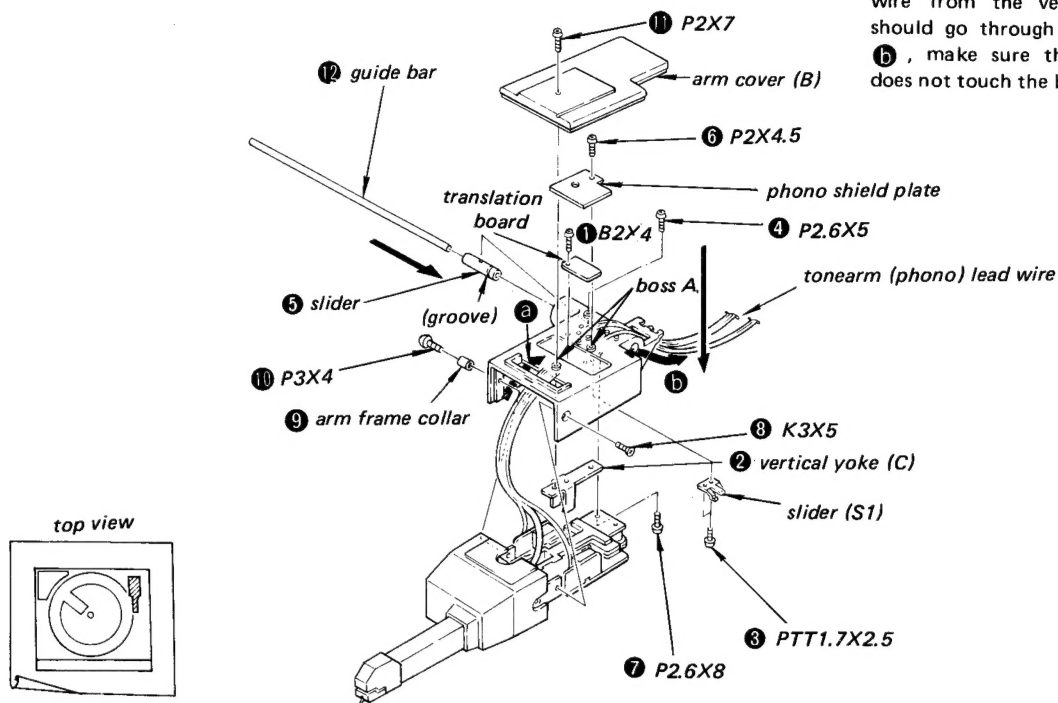


TONEARM ASSY (2)



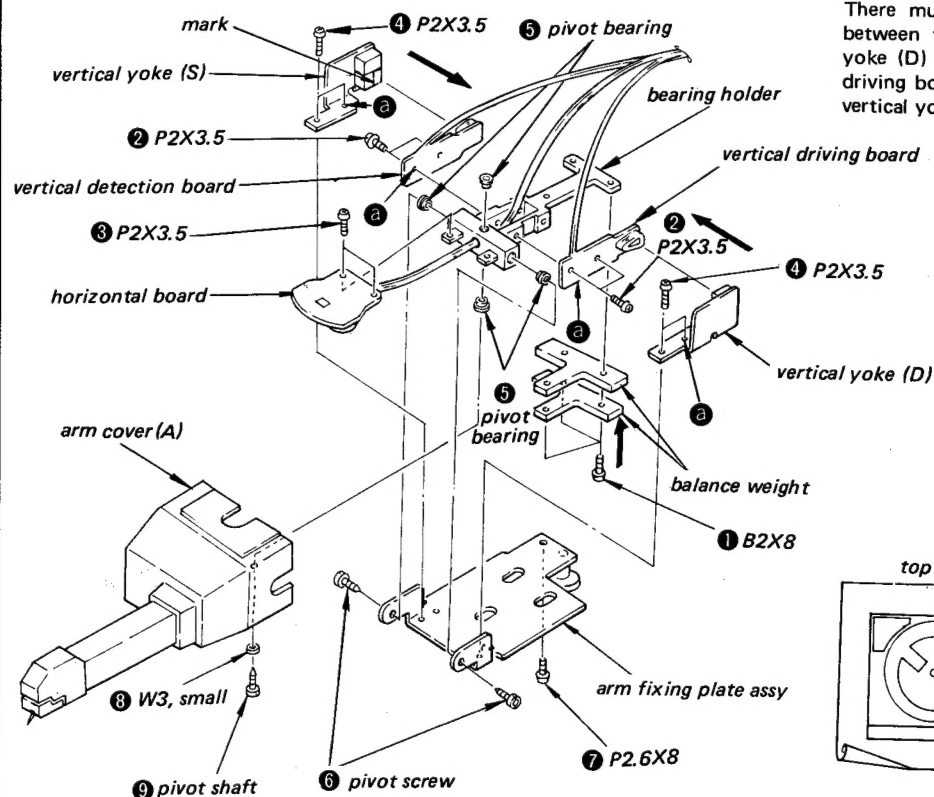
TONEARM ASSY (4)

Note: When assembling the slider ⑤, make sure the groove is first and the hole is on top as in the fig. The tonearm lead wire and the wire from the vertical board should go through as ①a and ①b, make sure the lead wire does not touch the boss A.



TONEARM ASSY (3)

Note: When screwing ① ② and ④, screw first where marked ①a. There must be at least 0.3mm gap between the magnet on the vertical yoke (D) and the coils on the vertical driving board. As to the side of the vertical yoke (S), do the same.

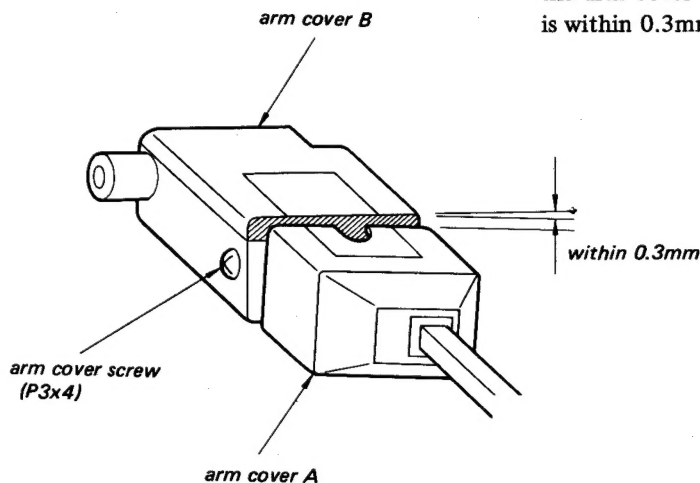


SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

Arm Cover Inclination Adjustment

Loosen the arm cover screw. Fix the screw so that the inclination of the arm cover B to the arm cover A is within 0.3mm.



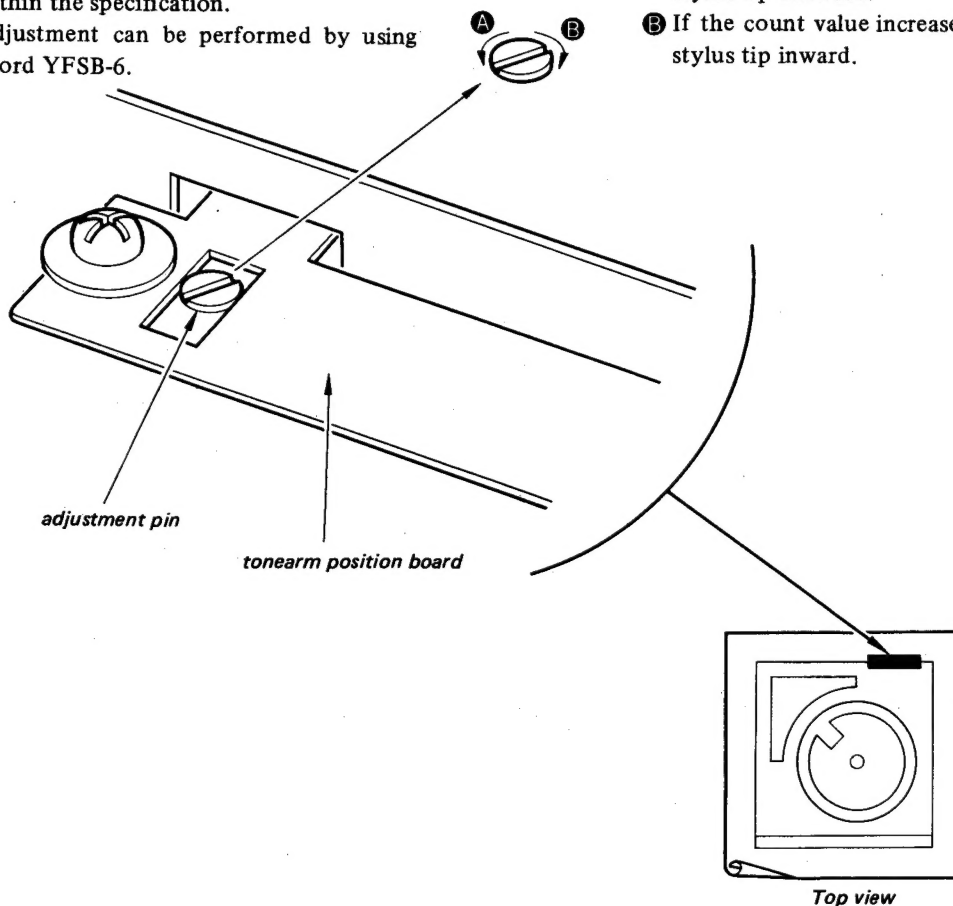
Test Record	Specification
YFSC-16 (30cm)	8 – 15 count
YFSB-6 (17cm)	18 – 29 count

Stylus Drop-point Adjustment

1. Put the test record (YFSC-16).
2. Press START/STOP button.
3. Turn the adjustment screw so that the drop-point obtains within the specification.

Note: This adjustment can be performed by using test record YFSB-6.

- Ⓐ If the count value decreases, move the stylus tip outward.
- Ⓑ If the count value increases, move the stylus tip inward.



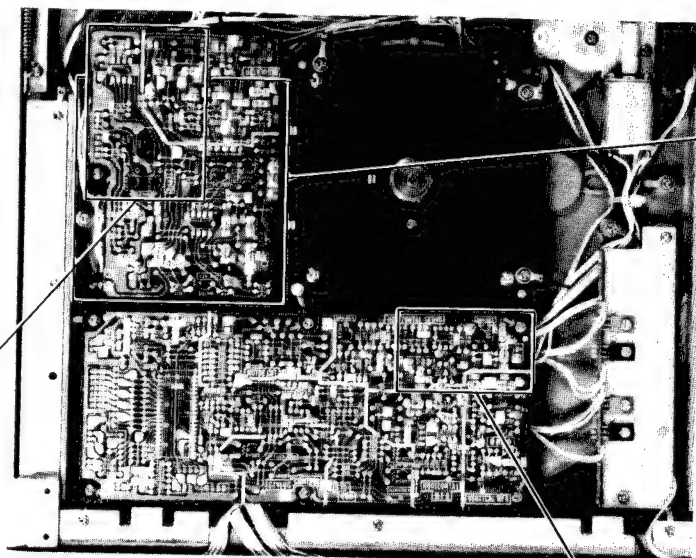
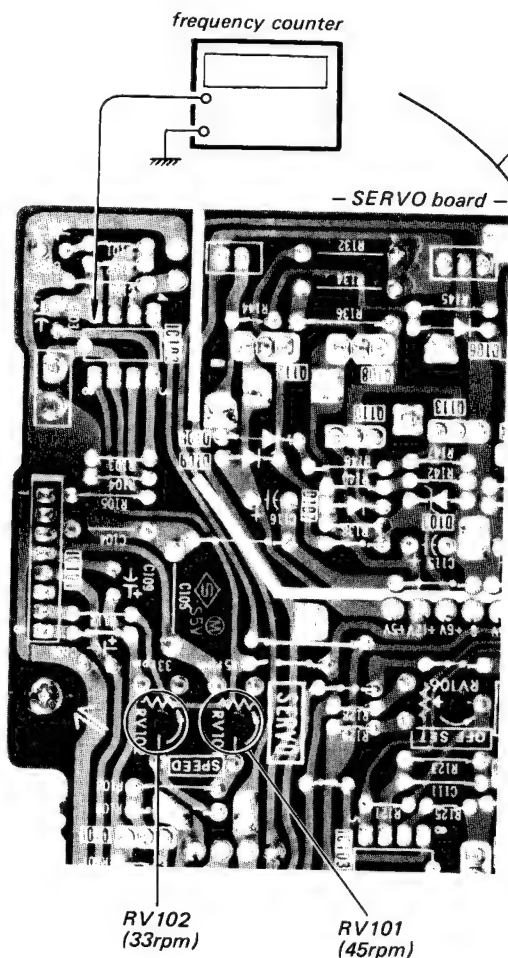
3-2. ELECTRICAL ADJUSTMENTS

- Perform the adjustments with the set operating normally.
- In this set, the voltage is applied to the power supplying line ($\pm 23V$) even if the POWER switch is turned OFF.
- Repeat the procedures 2-3 times.

Turntable Speed Adjustment

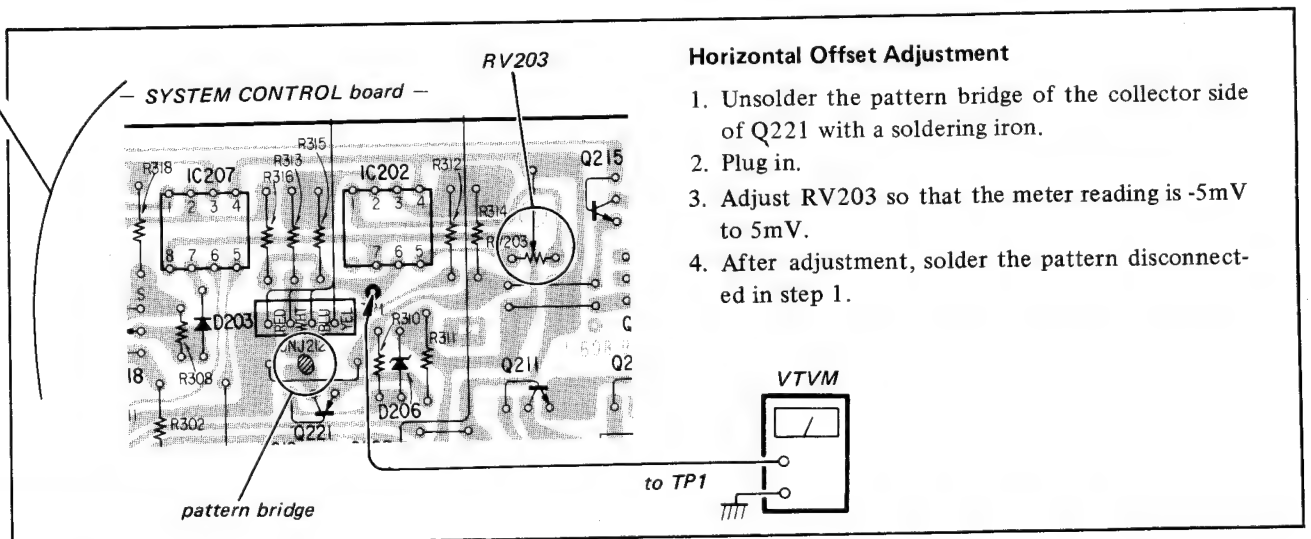
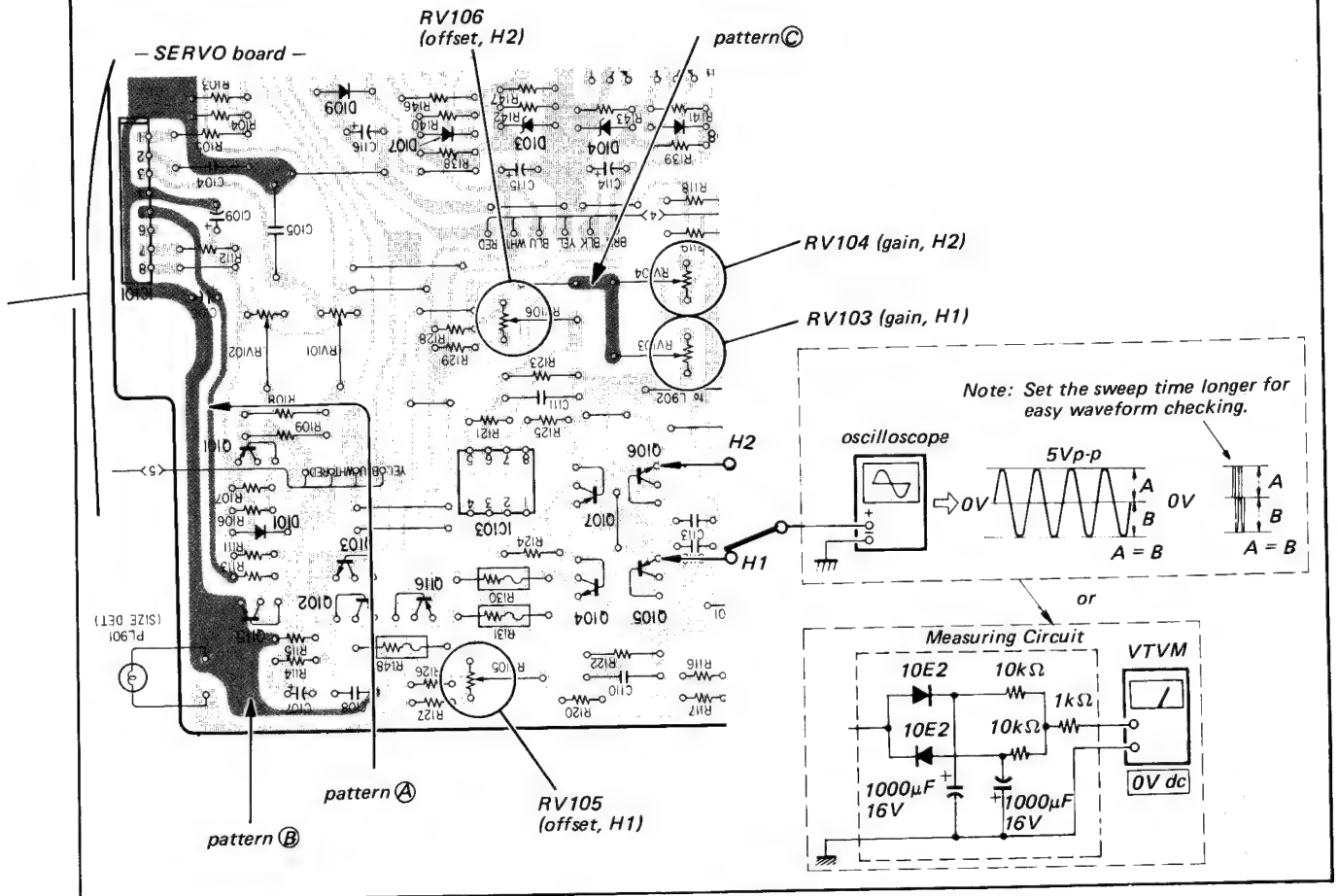
1. Connect frequency counter to IC102 pin ①.
2. POWER switch: ON
START switch: ON
SPEED switch: 45 rpm
3. Adjust RV101 so that the frequency counter reading is 95.7–96.3Hz.
4. SPEED switch: 33 rpm
5. Adjust RV102 so that the frequency counter reading is 70.90–71.32Hz.

Note: When the adjustment of 45 rpm (RV101) is performed, it makes a difference of adjustment value of 33 rpm. So, the adjustment should be finally done by 33 rpm (RV102).



Gain/Offset Adjustment

1. Connect IC101 pin ⑤ to the ground pattern. (Connect the pattern ① to ② with a jumper lead.)
2. Apply DC 1.5V to the emitter of Q103 (Pattern ③).
3. Adjust RV103(H1) and RV104(H2) so that the emitter voltage of Q104, 105(H1) and Q106, 107(H2) are 5V_{p-p}.Gain Adjustment
4. Adjust RV105(H1) and RV106(H2) so that the emitter waveforms of Q104, 105(H1) and Q106, 107(H2) are as shown below (or so that DC potential is 0V).Offset Adjustment
5. After adjustment, remove the jumper lead connected in step 1.



Horizontal Offset Adjustment

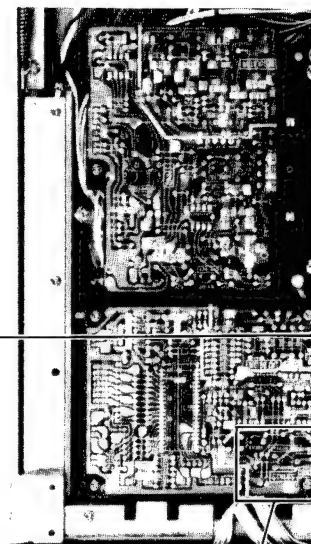
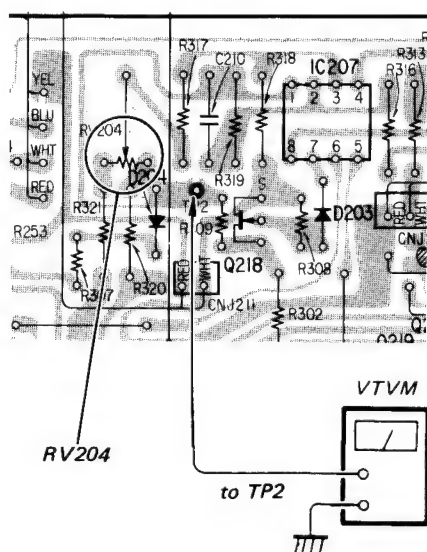
1. Unsolder the pattern bridge of the collector side of Q221 with a soldering iron.
2. Plug in.
3. Adjust RV203 so that the meter reading is -5mV to 5mV.
4. After adjustment, solder the pattern disconnect in step 1.

Tonearm Angle Adjustment (1)

1. Fix the turntable with adhesive tapes to prevent it from rotating, put a record on the turntable and lower the tonearm.
2. Make sure that the tonearm and the arm guide bar are at an angle of 90° (see fig. A page 20)
3. Adjust RV204 so that the meter reading is $-0.1V$ to $0.1V$

Note: Do not prevent the turntable from rotating more than 2 to 3 minutes (otherwise it will damage the rotating parts).

—SYSTEM CONTROL board—



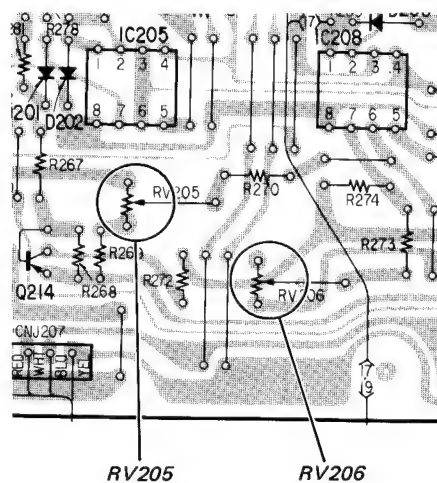
Stylus Force Adjustment

1. Set RV206 in the mechanical center.
2. Fix the turntable with adhesive tapes to prevent it from rotating, put the stylus force gauge on the turntable and lower the tonearm on the gauge.
3. Adjust RV205 so that the stylus force becomes 1.2g to 1.3g

Note: If specification is not met by turning RV205, adjust RV206.

Do not prevent the turntable from rotating more than 2 to 3 minutes (otherwise it will damage the rotating parts.)

—SYSTEM CONTROL board—



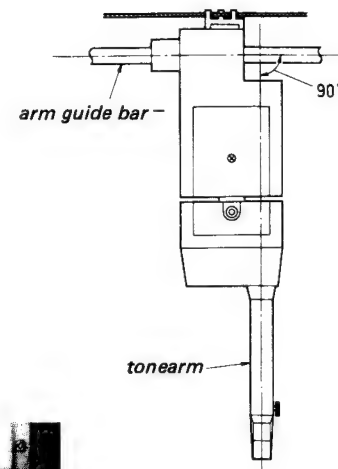
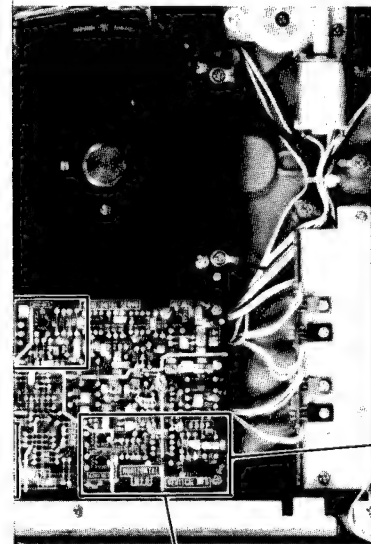


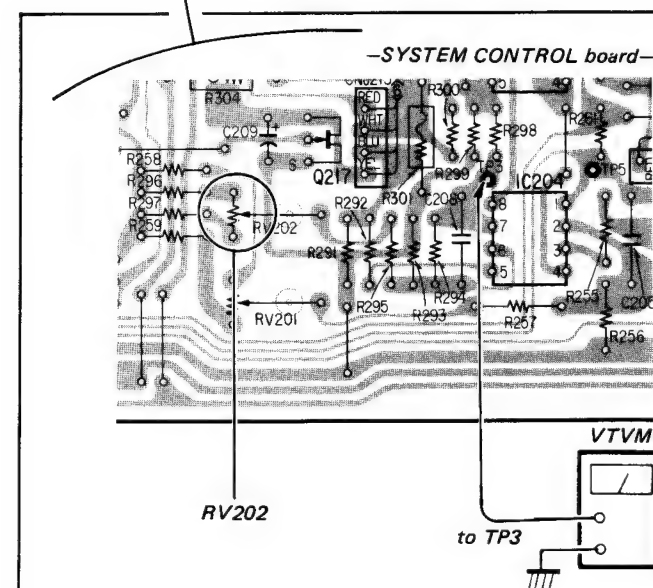
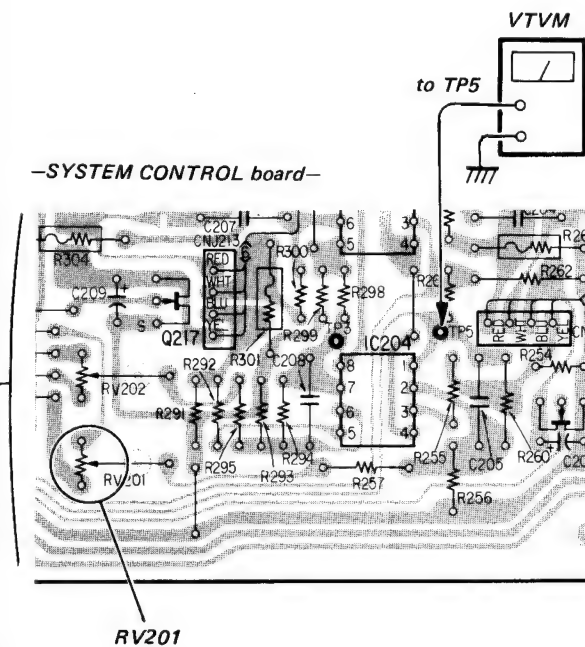
fig. A



Vertical Offset Adjustment

1. Fix the turntable with adhesive tapes to prevent it from rotating, put a record on the turntable and lower the tonearm.
2. Adjust RV201 so that the meter reading is -10mV to 10mV .

Note: Do not prevent the turntable from rotating more than 2 to 3 minutes (otherwise it will damage the rotating parts).



Tonearm Angle Adjustment (2)

1. Fix the turntable with adhesive tapes to prevent it from rotating, put a record on the turntable and lower the tonearm.
2. Make sure that the tonearm and the arm guide bar are at an angle of 90° (see fig. A)
3. Adjust RV202 so that the meter reading is -10mV to 10mV .

Note: Do not prevent the turntable from rotating more than 2 to 3 minutes (otherwise it will damage the rotating parts).

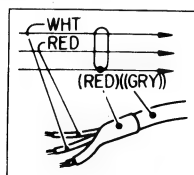
SECTION 4 DIAGRAMS

4-1. MOUNTING DIAGRAM

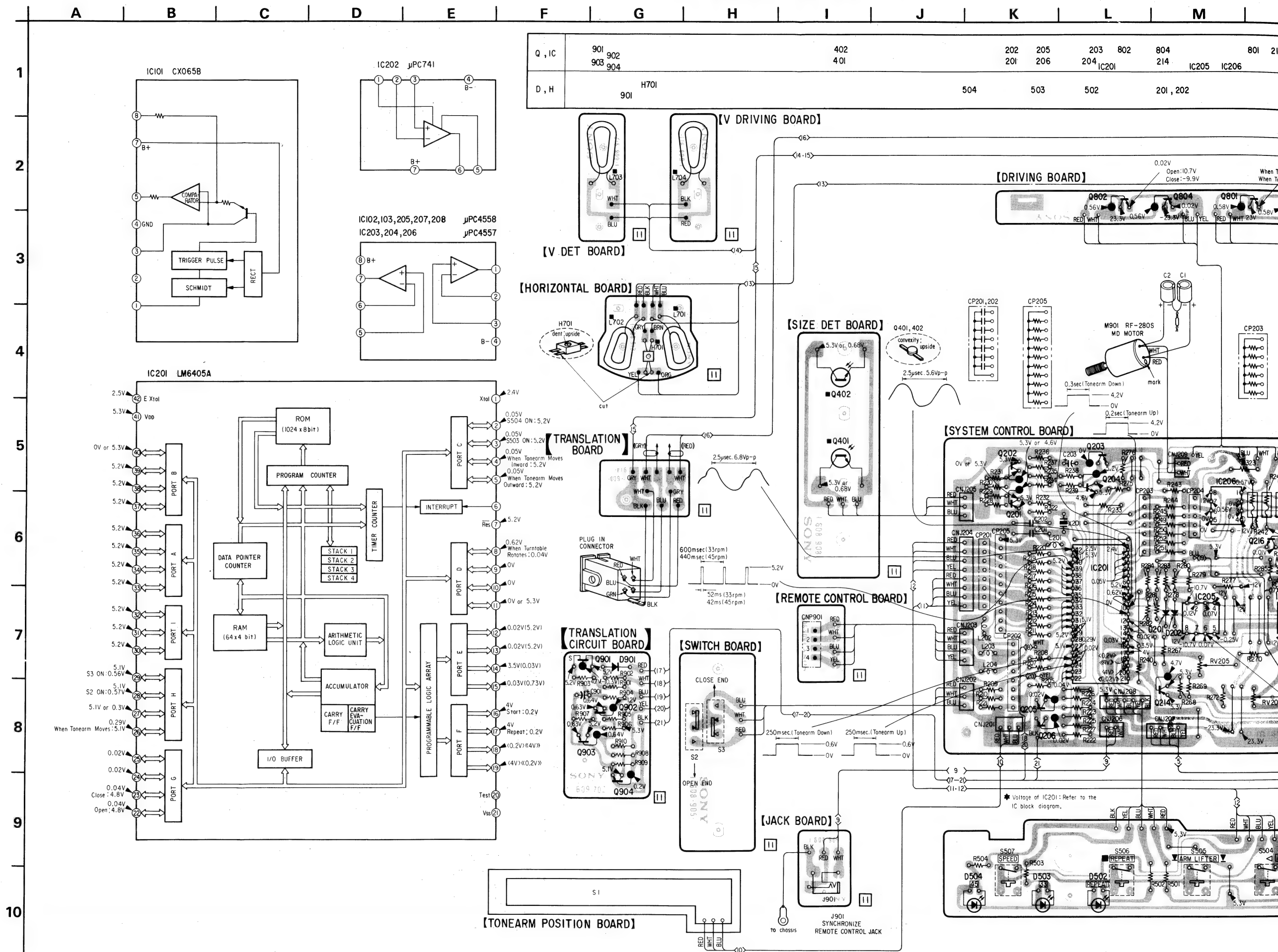
— Conductor Side —

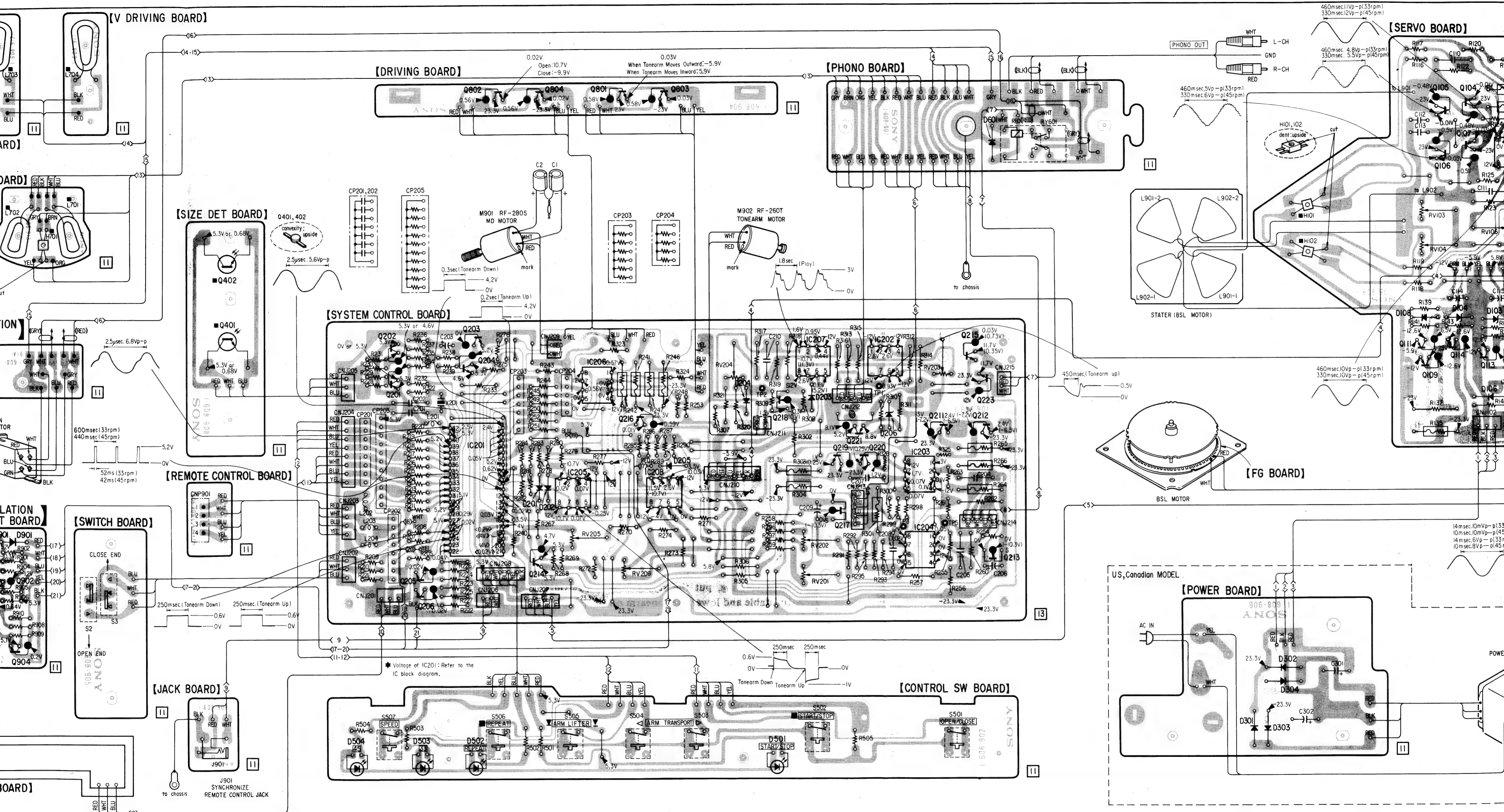
- See page 33 for the semiconductor lead layouts and circuit boards location.

- Note:**
- Color code of sleeving over the end of the jacket.

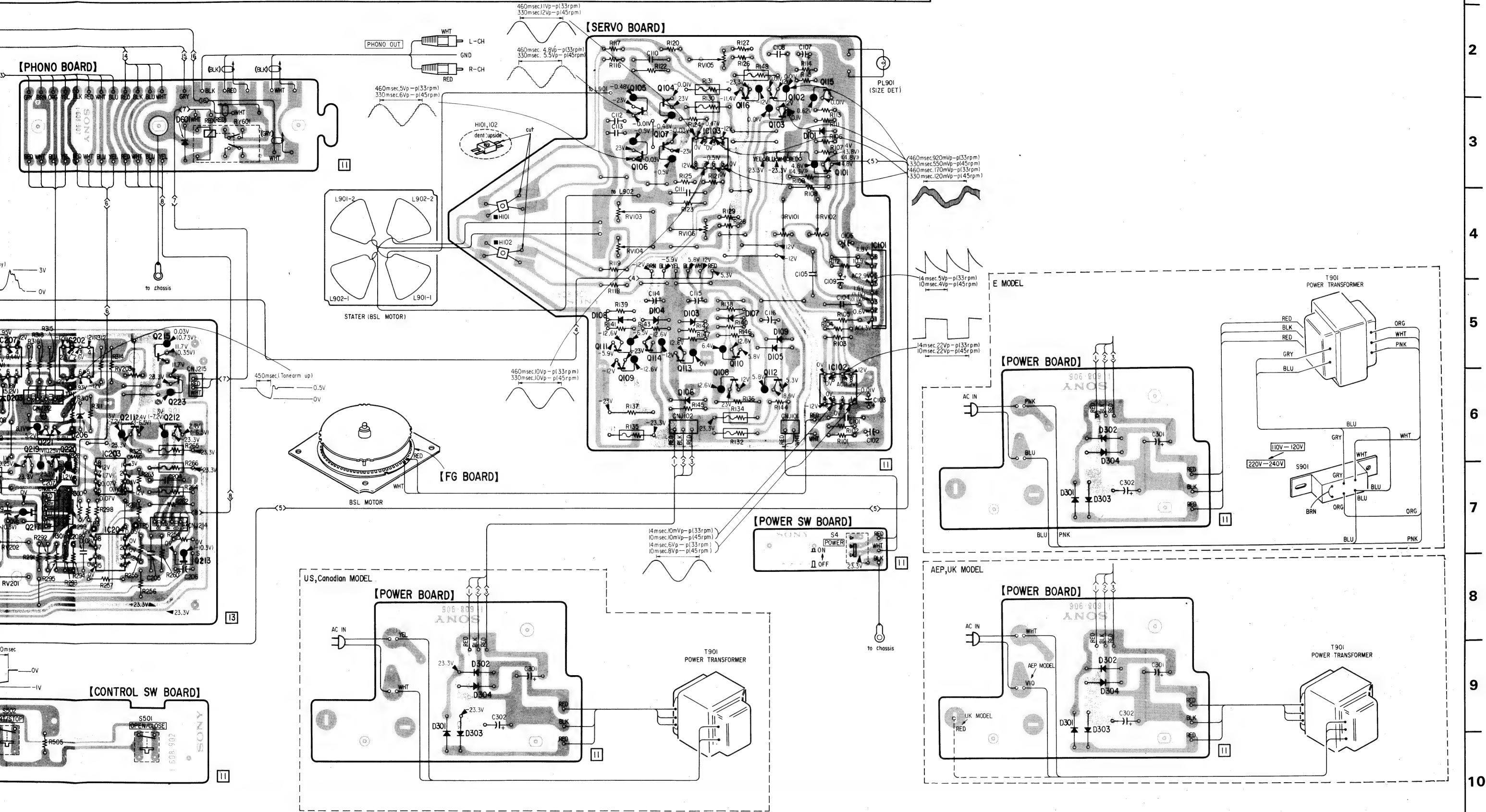


- parts extracted from the component side.
- parts extracted from the conductor side.
- part mounted on the conductor side.
- B + pattern



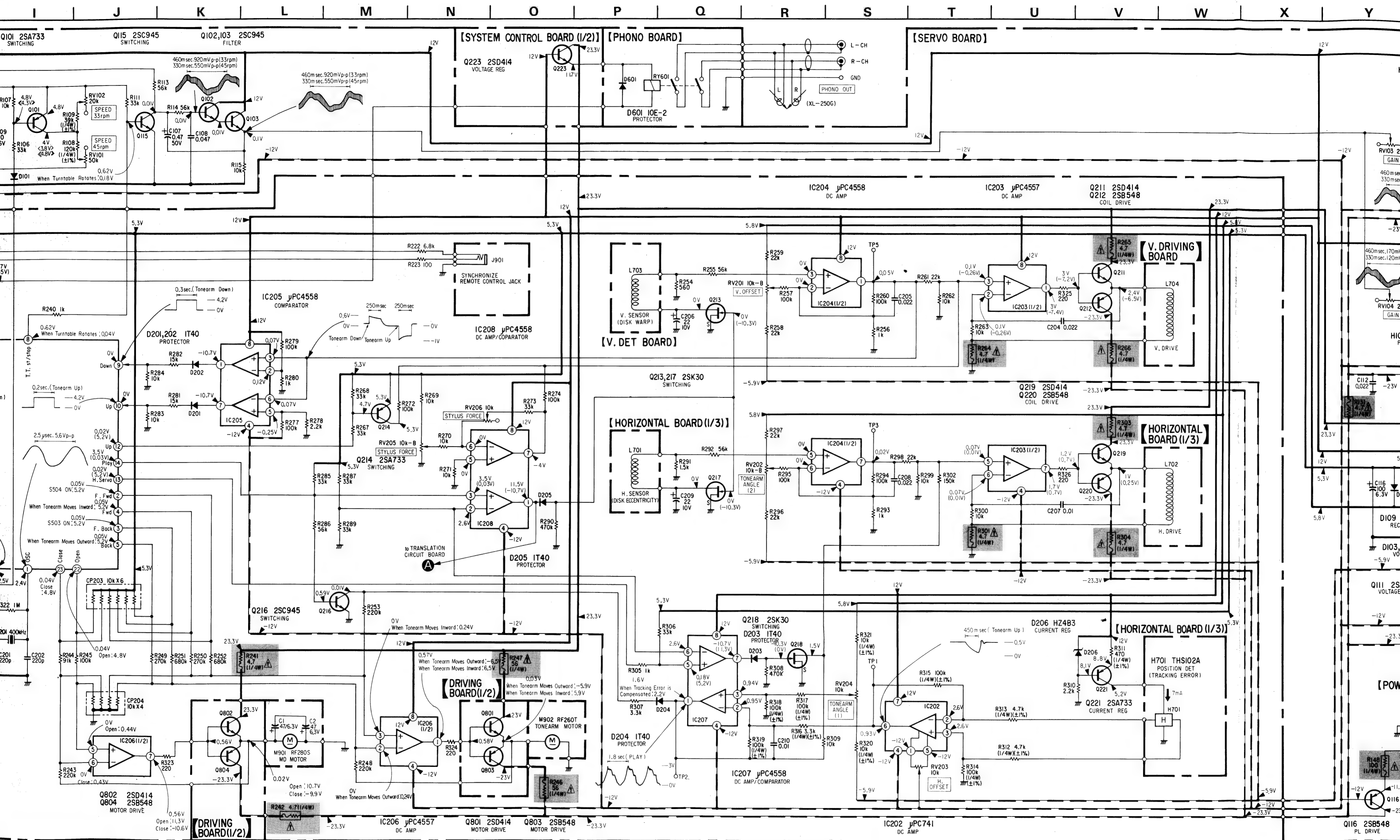


P	Q	R	S	T	U	V	W	X	Y	Z	A1	B1	C1	D1	E1
219, 221 217	211 IC203	223 212 213					111 105 104 107 110 116 102 103 115 101 IC102 IC101								Q, IC D, H
IC207	IC202	IC204					108 104 103 106 107 109 101								
03	206	601			301 302 304 303	HI01 HI02									


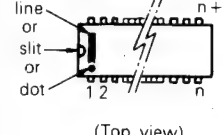
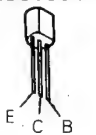
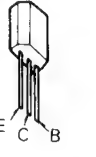


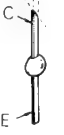
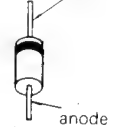
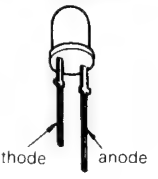
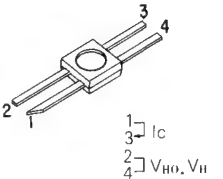


PS-FL77 PS-FL77



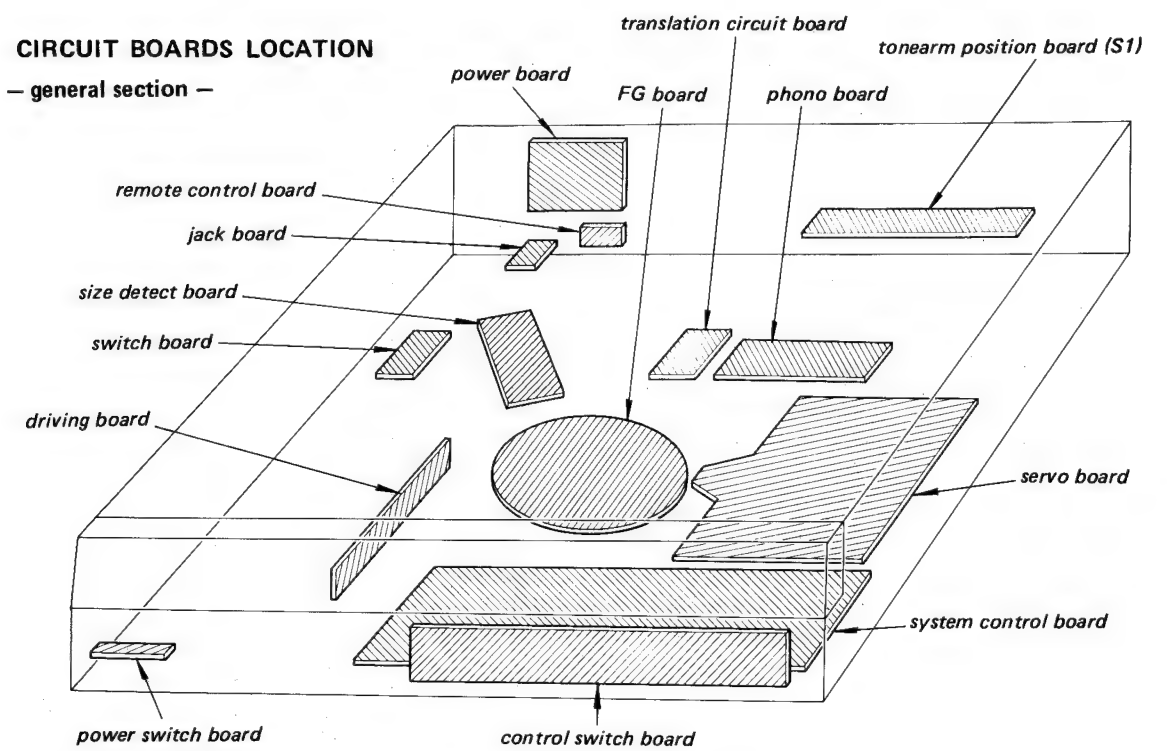


Semiconductor Lead Layouts

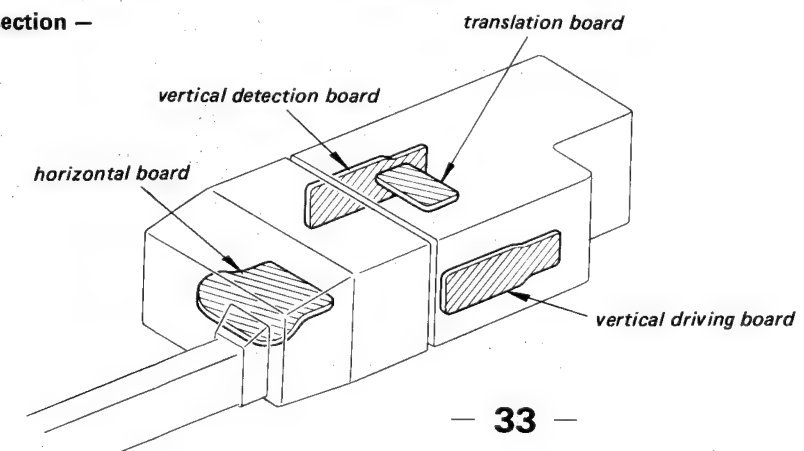
CX065B 	LM6405A μPC741 μPC4557 μPC4558  (Top view)	2SA733 2SA733A 2SC945 2SC1364 	2SA1027R 	2SB548 2SD414 letter side 
2SK30 2SK246 	PH101 	10E2 1S1555 1T40 HZ4B3 HZ6B2L 	GL-3HD5 	THS102A 

CIRCUIT BOARDS LOCATION

— general section —

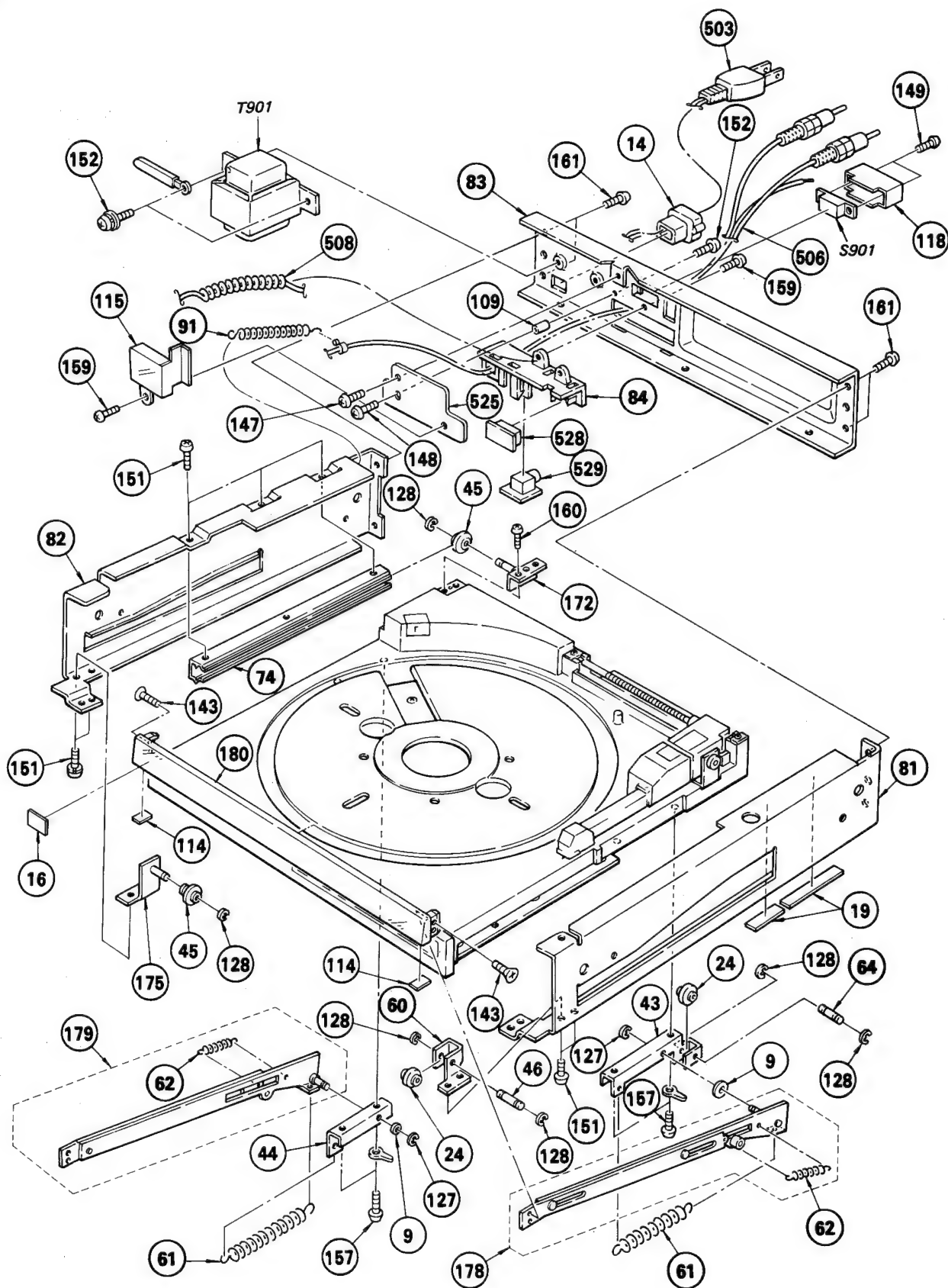


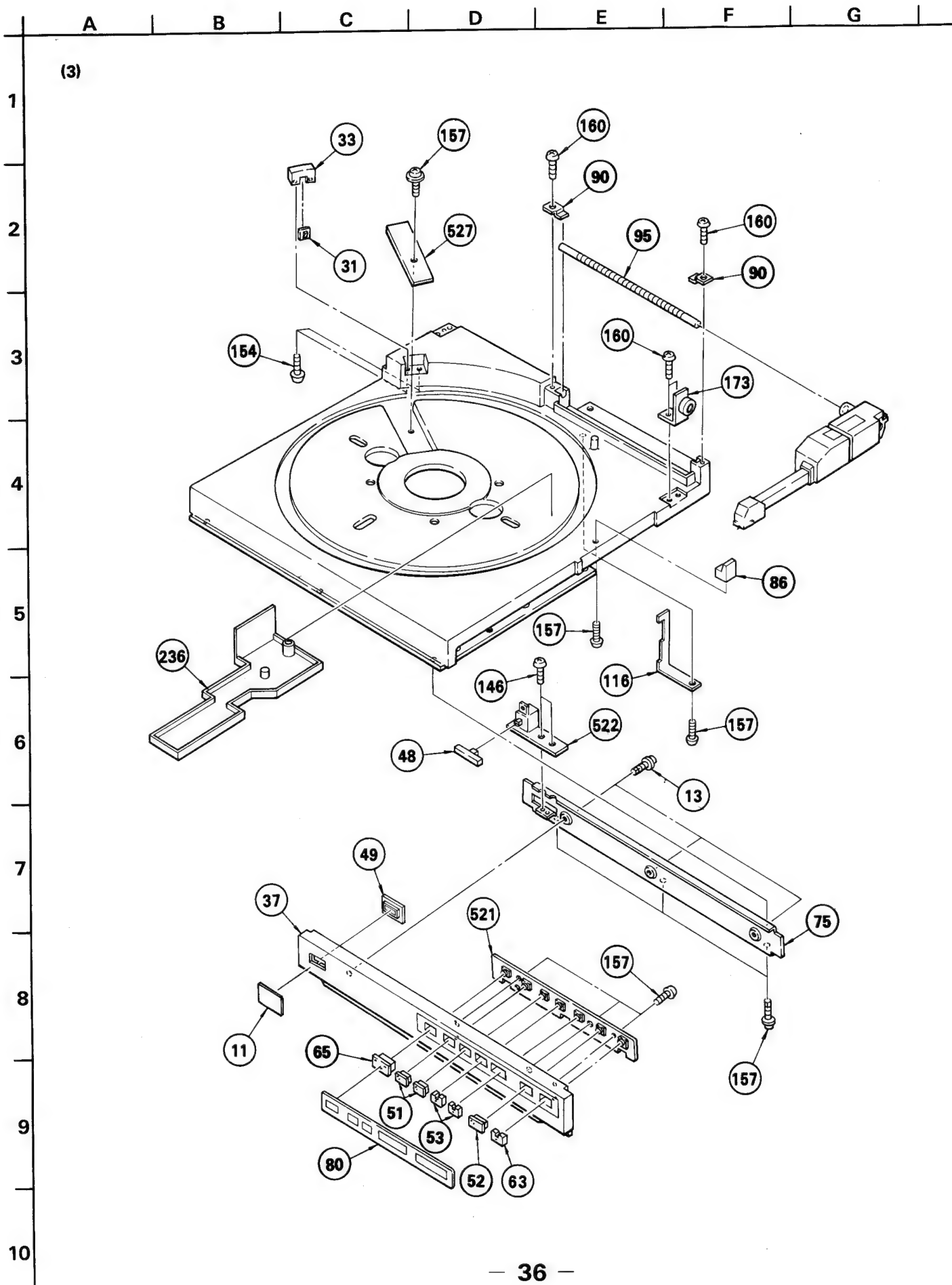
— tonearm section —

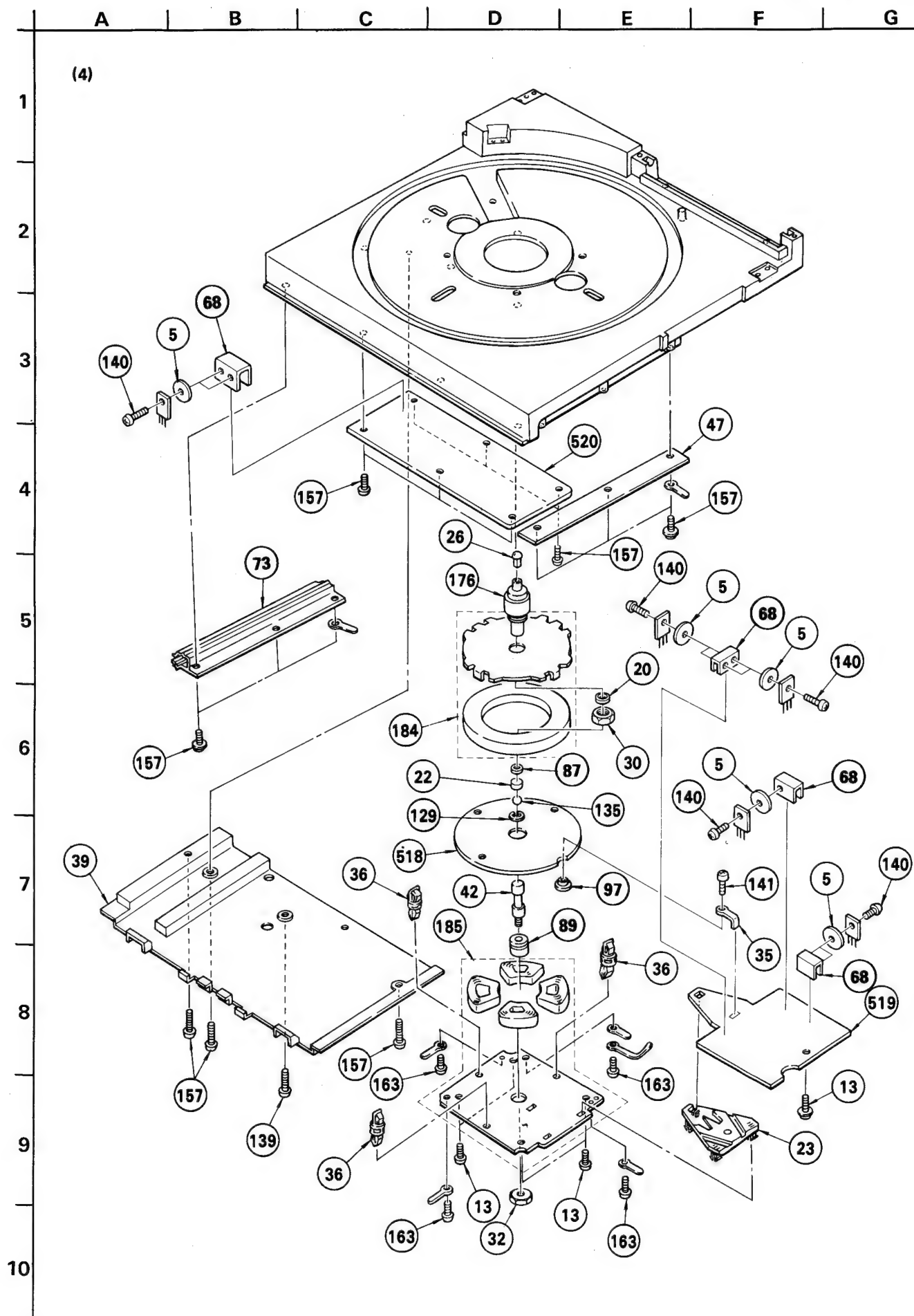


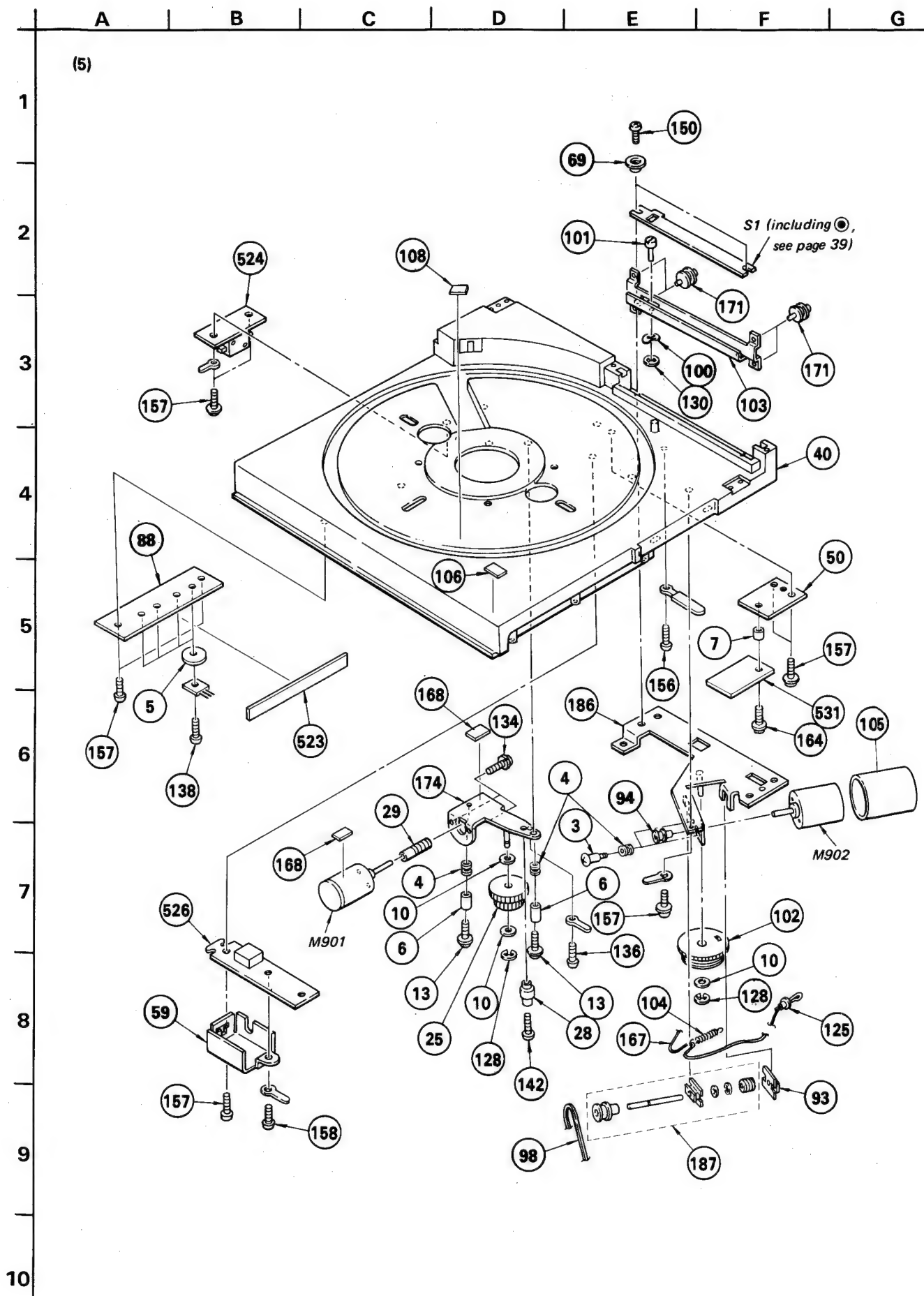


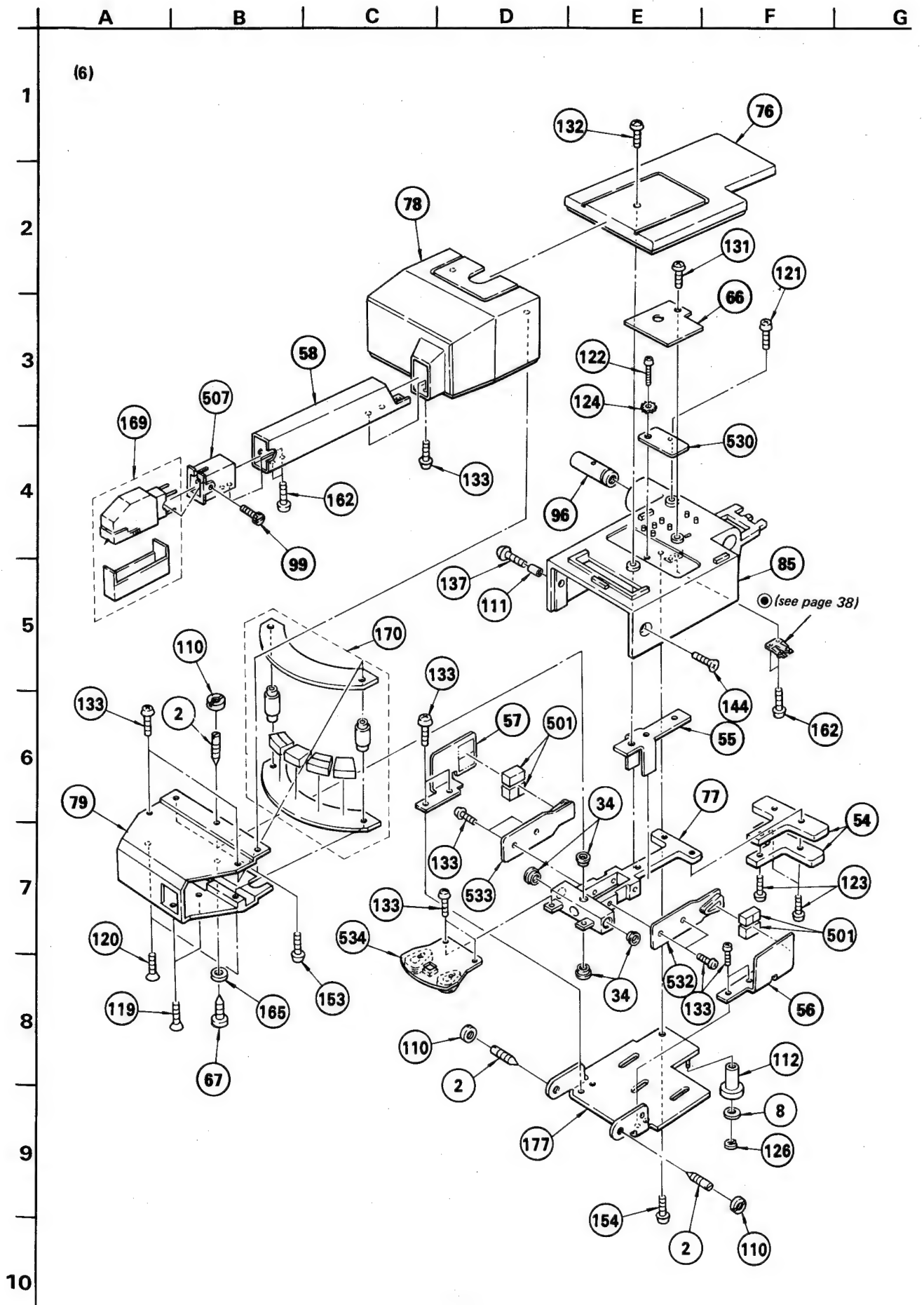
(2)











GENERAL SECTION

No.	Part No.	Description
1	0-056-028-00	WASHER, PLAIN, 14 DIA.
2	2-203-518-71	SCREW, PIVOT
3	3-570-027-00	SCREW, MOTOR
4	3-570-118-00	CUSHION, MOTOR
5	3-572-365-01	SHEET (A), INSULATING
6	3-654-058-00	SPACER 3X3
7	3-657-842-01	COLLAR
8	3-701-439-11	WASHER
9	3-701-439-21	WASHER
10	3-701-441-21	WASHER
11	3-701-690-00	(UK)....LABEL (MADE IN JAPAN)
12	3-703-043-21	(Canadian,UK)....LABEL, CAUTION, MAIN
12	3-703-680-00	(US).....LABEL, CAUTION, SUB, NEW UL
13	3-703-137-00	SCREW, TAPPING
14	3-703-244-00	(US,Canadian,AEP,UK)....BUSHING, CORD
14	3-703-571-00	(E).....BUSHING, CORD
15	3-703-396-00	(UK)....LABEL, CAUTION
15	3-703-677-00	(US)....LABEL, CAUTION, MAIN, NEW UL
16	3-703-708-01	STICKER, SONY SYMBOL (18)
17	
18	3-831-441-11	SHEET, PROTECTION
19	3-831-441-XX	SPACER
20	3-849-306-00	WASHER
21	4-820-330-51	SCREW, BW, PLUS MINUS
22	4-852-007-00	RETAINER (A), THRUST
23	4-857-642-00	HOLDER, PC BOARD
24	4-879-509-00	ROLLER (A)
25	4-879-514-00	WHEEL (A), WORM
26	4-879-541-00	CAP, CENTER
27	4-879-545-11	PROTECTOR (A)
28	4-879-568-00	GUIDE, RACK
29	4-879-571-00	WORM
30	4-879-701-00	NUT, HEXAGON
31	4-879-741-00	WINDOW, LAMP
32	4-879-758-00	NUT, SHAFT, MOTOR
33	4-879-775-11	HOLDER, LAMP
34	4-881-618-00	BEARING, PIVOT
35	4-881-629-00	PLATE (A), GROUND
36	4-881-636-11	SUPPORT (TMD), PC
37	4-885-501-00	(US,Canadian,E)....PANEL, CONTROL
37	4-885-501-11	(AEP,UK).....PANEL, CONTROL
38	4-885-502-00	TURNTABLE
39	4-885-504-00	COVER, REAR
40	4-885-506-00	FRAME

GENERAL SECTION

No.	Part No.	Description
41	4-885-509-00	PLATE, FUNCTION,LOADING SWITCH
42	4-885-515-00	SHAFT, MOTOR
43	4-885-518-00	BRACKET (RIGHT), PANEL LIFTER
44	4-885-519-00	BRACKET (LEFT), PANEL LIFTER
45	4-885-520-00	ROLLER (A), GUIDE
46	4-885-524-00	SHAFT (C), GUIDE ROLLER
47	4-885-527-00	GUIDE (C)
48	4-885-531-00	KNOB, POWER
49	4-885-532-00	GUIDE, POWER KNOB
50	4-885-535-00	SUPPORT, TRANSPORT
51	4-885-536-00	KNOB (A)
52	4-885-537-00	KNOB (B)
53	4-885-538-00	KNOB (C)
54	4-885-540-00	WEIGHT, BALANCE
55	4-885-542-00	YOKE (C), VERTICAL
56	4-885-543-00	YOKE (D), VERTICAL
57	4-885-544-00	YOKE (S), VERTICAL
58	4-885-547-00	PIPE, ARM
59	4-885-549-00	PLATE, SHIELD
60	4-885-550-00	BRACKET (RIGHT), ROLLER
61	4-885-552-00	SPRING, TENSION
62	4-885-553-00	SPRING, TENSION
63	4-885-554-00	KNOB (D)
64	4-885-557-00	SHAFT (D), GUIDE ROLLER
65	4-885-558-00	KNOB (E)
66	4-885-559-00	PLATE, SHIELD, PHONO
67	4-885-561-00	SHAFT, PIVOT
68	4-885-562-00	HEAT SINK
69	4-885-563-00	COLLAR, ARM SWITCH
70	4-885-566-00	PLATE, RACK
71	4-885-567-00	PANEL, UPPER
72	4-885-568-00	REINFORCEMENT
73	4-885-571-02	GUIDE (A)
74	4-885-572-02	GUIDE (B)
75	4-885-573-00	BRACKET, CONTROL PANEL
76	4-885-574-00	COVER (B), ARM
77	4-885-575-00	HOLDER, BEARING
78	4-885-576-03	COVER (A), ARM
79	4-885-577-00	BRACKET, ARM
80	4-885-578-00	SHEET, CONTROL
81	4-885-580-00	PLATE (RIGHT), SIDE
82	4-885-581-00	PLATE (LEFT), SIDE
83	4-885-583-01	(US,Canadian,AEP,UK)....PANEL, BACK
83	4-885-583-21	(E).....PANEL, BACK
84	4-885-584-00	TERMINAL BOARD, REMOTE CONTROL
85	4-885-585-00	FRAME (A), ARM

NOTE:

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- Items marked " " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

GENERAL SECTION

No.	Part No.	Description
86	4-885-588-00	REST, ARM
87	4-885-589-00	WASHER, THRUST
88	4-885-590-00	HEAT SINK
89	4-885-591-00	SPACER, SHAFT, MOTOR
90	4-885-595-00	PLATE, FIXED, GUIDE BAR
91	4-885-597-00	SPRING, TENSION
92	4-885-599-00	SCREW, FITTING, REINFORCEMENT
93	4-885-703-00	GUIDE, WORM SHAFT
94	4-885-704-00	PULLEY, MOTOR
95	4-885-709-00	BAR, GUIDE
96	4-885-717-00	SLIDER
97	4-885-727-00	SPACER
98	4-885-735-00	BELT, DRIVING
99	4-885-746-00	SCREW, FITTING, CARTRIDGE
100	4-885-747-00	WASHER (H)
101	4-885-748-00	PIN, ADJUSTMENT
102	4-885-749-00	WHEEL, WORM
103	4-885-750-00	GUIDE, ROLLER
104	4-885-767-00	SPRING, TENSION
105	4-885-775-00	CAP, MOTOR
106	4-885-792-00	PLUG IN SEAL (A)
107	4-886-701-00	REINFORCEMENT (UPPER)
108	4-886-708-00	LABEL, STYLUS PRESSURE
109	4-886-709-00	COLLAR, TERMINAL BOARD
110	4-886-712-00	NUT (B), LOCK, PIVOT
111	4-886-713-00	COLLAR, ARM FRAME
112	4-886-714-00	ROLLER, GUIDE
113	4-886-715-00	(AEP).....LABEL, MODEL NUMBER
113	4-886-716-00	(US,Canadian)....LABEL, MODEL NUMBER
113	4-886-717-00	(UK).....LABEL, MODEL NUMBER
113	4-886-718-00	(E).....LABEL, MODEL NUMBER
114	4-886-719-00	SHEET, PROTECTION
115	4-886-720-00	COVER, INSULATING
116	4-886-721-00	PLATE, PHONO CORD
117	4-886-722-00	SCREW, FITTING, UPPER PANEL
118	4-886-724-00	(E)....COVER, SELECTION, VOLTAGE
119	7-621-555-10	SCREW *K 2X3
120	7-621-555-52	SCREW *K 2X8
121	7-621-770-87	SCREW +P 2.6X5
122	7-621-772-18	SCREW +B 2X4
123	7-621-772-48	SCREW +B 2X8
124	7-623-420-07	LW 2, TYPE B
125	7-623-616-01	EYELET, 2X3
126	7-624-104-04	STOP RING 2.0, TYPE -E
127	7-624-105-04	STOP RING 2.3, TYPE -E
128	7-624-106-04	STOP RING 3.0, TYPE -E

GENERAL SECTION

No.	Part No.	Description
129	7-624-133-94	STOP RING 15, TYPE-CE
130	7-624-190-81	STOP RING 2, TYPE-CS
131	7-627-553-57	SCREW, PRECISION +P 2X4.5
132	7-627-553-87	SCREW, PRECISION +P 2X7
133	7-627-554-17	SCREW, PRECISION +P 2X3.5
134	7-628-253-95	SCREW +PS 2.6X4
135	7-671-114-01	BALL 4, STEEL
136	7-682-144-01	SCREW +P 3X3
137	7-682-145-13	SCREW +P 3X4
138	7-682-146-01	SCREW +P 3X5
139	7-682-146-13	SCREW +P 3X5
140	7-682-147-20	SCREW +P 3X6
141	7-682-149-13	SCREW +P 3X10
142	7-682-152-01	SCREW +P 3X16
143	7-682-245-04	SCREW +K 3X4
144	7-682-246-04	SCREW +K 3X5
145	7-682-544-04	SCREW +B 3X3
146	7-682-545-04	SCREW +B 3X4
147	7-682-546-04	SCREW +B 3X5
148	7-682-547-04	SCREW +B 3X6
149	7-682-547-09	(E)...SCREW +B 3X6
150	7-682-550-09	SCREW +B 3X12
151	7-682-646-01	SCREW +PS 3X5
152	7-682-947-01	SCREW +PSW 3X6
153	7-685-103-11	SCREW +PTP 2X5 TYPE2 NON-SLIT
154	7-685-134-11	SCREW +P 2.6X8 TYPE2 NON-SLIT
155	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT
156	7-685-146-14	SCREW +P 3X8 TYPE2 SLIT
157	7-685-147-21	SCREW +P 3X10 TYPE2 SLIT
158	7-685-148-11	SCREW +P 3X12 TYPE2 SLIT
159	7-685-545-14	SCREW +BTP 3X6 TYPE2 N-S
160	7-685-647-24	SCREW +BVTP 3X10 TYPE2 SLIT
161	7-685-750-01	SCREW +PTT 3X5 (S)
162	7-685-799-04	SCREW +PTT 1.7X2.5
163	7-685-870-01	SCREW +BVTT 3X5 (S)
164	7-685-873-01	SCREW +BVTT 3X10
165	7-688-003-03	W 3, SMALL
166	7-688-003-11	W 3, MIDDLE
167	9-911-825-42	STRING, TETRON DIAL (0.5MM)
168	9-911-840-XX	CUSHION
169	A-4505-089-A	(Canadian,AEP,UK,E)...CARTRIDGE COMPLETE ASSY
170	A-4639-032-A	YOKE ASSY, HORIZONTAL
171	X-3701-109-0	PULLEY ASSY
172	X-4885-502-0	BRACKET (A) ASSY, GUIDE ROLLER
173	X-4885-503-0	BRACKET (B) ASSY, GUIDE ROLLER

NOTE:

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- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

GENERAL SECTION

No.	Part No.	Description
174	•;X-4885-504-0	BRACKET ASSY, LOADING GEAR
175	•;X-4885-505-0	BRACKET (LEFT) ASSY, ROLLER
176	X-4885-506-0	BEARING ASSY, MOTOR
177	•;X-4885-507-0	PLATE ASSY, FIXED, ARM
178	•;X-4885-509-0	LIFTER (RIGHT) ASSY, PANEL
179	•;X-4885-510-0	LIFTER (LEFT) ASSY, PANEL
180	X-4885-511-0	PANEL ASSY, FRONT
181	X-4885-512-0	COVER ASSY, DUST
182	•;X-4885-513-0	PLATE ASSY, BOTTOM
183	X-4885-514-0	INSULATOR ASSY
184	X-4885-515-1	ROTOR ASSY
185	X-4885-516-1	STATOR ASSY
186	X-4885-702-3	BRACKET ASSY, MOTOR
187	X-4885-710-0	WORM ASSY

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
221	▲.1-526-565-00	(E1).....AC PLUG ADAPTOR
222	3-532-616-00	BAG, POLYETHYLENE
223	3-701-630-00	BAG, POLYETHYLENE
224	3-701-634-00	BAG, POLYETHYLENE
225	3-701-806-03	ADAPTOR, 45, (E)
226	3-773-230-11	(AEP,UK,E).....MANUAL, INSTRUCTION
226	3-773-230-21	(US,Canadian)...MANUAL, INSTRUCTION
226	3-773-230-31	(Canadian).....MANUAL, INSTRUCTION
226	3-773-230-41	(AEP).....MANUAL, INSTRUCTION
227	4-808-459-31	SCREW (B), MOTOR LOCK
228	4-879-799-00	PLATE (A), PROTECTION
229	4-885-503-01	(Canadian,AEP,UK,E)...SHEET, TURNTABLE
229	4-885-503-11	(US).....SHEET, TURNTABLE
230	4-885-533-00	LOCK (A), TRANSPORT
231	4-885-592-02	CUSHION (LEFT)
232	4-885-593-02	CUSHION (RIGHT)
233	4-885-596-00	HOLDER, TURNTABLE
234	4-885-598-01	SCREWDRIVER, ADJUSTMENT
235	4-886-703-00	SCREW, TRANSPORT
236	•;4-886-704-00	PLATE, TRANSPORT, ARM
237	4-886-710-00	SHEET, PROTECTION, DUST COVER

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- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.

MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

• F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	♣;1-452-291-00	MAGNET (VERTICAL)
502	♣;1-508-799-00	BASE POST (U TYPE)
503	♣;1-534-817-XX	(AEP).....CORD, POWER
503	♣;1-551-472-00	(E).....CORD, POWER
503	♣;1-551-628-00	(US,Canadian)....CORD, POWER
503	♣;1-556-562-00	(UK).....CORD, POWER
504	♣;1-535-116-00	TERMINAL
505	♣;1-535-416-00	TERMINAL
506	1-556-242-00	(AEP,UK,E).....CORD, CONNECTION
506	1-556-242-21	(US,Canadian)....CORD, CONNECTION
507	1-556-552-00	CONNECTOR (PLUG IN TYPE)
508	1-556-730-11	(AEP,UK,E).....CORD, CURL
508	1-556-730-21	(US,Canadian)....CORD, CURL
509	♣;1-560-596-00	PIN, CONNECTOR 2P
510	♣;1-560-597-00	PIN, CONNECTOR 3P
511	♣;1-560-598-00	PIN, CONNECTOR 4P
512	♣;1-560-602-00	PIN, CONNECTOR 3P
513	♣;1-560-603-00	PIN, CONNECTOR 4P
514	♣;1-560-604-00	PIN, CONNECTOR 5P
515	♣;1-560-605-00	PIN, CONNECTOR 6P
516	♣;1-560-708-00	PIN, CONNECTOR 2P
517	♣;1-560-709-00	PIN, CONNECTOR 8P
518	1-608-883-00	PC BOARD, FG
519	♣;1-608-900-00	PC BOARD, SERVO
519	♣;A-4619-190-A	MOUNTED PCB, SERVO
520	♣;1-608-901-00	PC BOARD, SYSTEM CONTROL
520	♣;A-4619-191-A	MOUNTED PCB, SYSTEM CONTROL
521	♣;1-608-902-00	PC BOARD, CONTROL SW
522	♣;1-608-903-00	PC BOARD, POWER SW
523	♣;1-608-904-00	PC BOARD, DRIVING
524	♣;1-608-905-00	PC BOARD, SWITCH
525	♣;1-608-906-00	PC BOARD, POWER
526	♣;1-608-907-00	PC BOARD, PHONO
527	♣;1-608-908-00	PC BOARD, SIZE DETECT
528	♣;1-608-909-00	PC BOARD, REMOTE CONTROL
529	♣;1-608-910-00	PC BOARD, JACK
530	♣;1-608-914-00	PC BOARD, TRANSLATION
531	♣;1-609-702-00	PC BOARD, TRANSLATION CIRCUIT
532	A-4638-058-A	MOUNTED PCB, VERTICAL DRIVING
533	A-4638-059-A	MOUNTED PCB, VERTICAL DETECTION
534	A-4647-065-A	MOUNTED PCB, HORIZONTAL
♣CNP901	1-560-039-00	PIN, CONNECTOR
CP204	1-232-130-00	COMPOSITION CIRCUIT BLOCK 10KX4
CP205	1-231-786-00	COMPOSITION CIRCUIT BLOCK 47KX10

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D101	8-719-815-55	DIODE 1S1555
D103	8-719-910-65	DIODE HZ6B2L
D104	8-719-910-65	DIODE HZ6B2L
D105	8-719-815-55	DIODE 1S1555
D106	8-719-815-55	DIODE 1S1555
D107	8-719-815-55	DIODE 1S1555
D108	8-719-815-55	DIODE 1S1555
D109	8-719-815-55	DIODE 1S1555
D201	8-719-815-55	DIODE 1S1555
D202	8-719-815-55	DIODE 1S1555
D203	8-719-815-55	DIODE 1S1555
D204	8-719-815-55	DIODE 1S1555
D205	8-719-815-55	DIODE 1S1555
D206	8-719-901-43	DIODE HZ4B3
D301	8-719-200-02	DIODE 10E-2
D302	8-719-200-02	DIODE 10E-2
D303	8-719-200-02	DIODE 10E-2
D304	8-719-200-02	DIODE 10E-2
D501	8-719-903-50	DIODE GL-3HD5
D502	8-719-903-50	DIODE GL-3HD5
D503	8-719-903-50	DIODE GL-3HD5
D504	8-719-903-50	DIODE GL-3HD5
D601	8-719-200-02	DIODE 10E-2
D901	8-719-815-55	DIODE 1S1555
H101	8-719-800-17	DIODE THS102A
H102	8-719-800-17	DIODE THS102A
H701	8-719-800-17	DIODE THS102A
IC101	8-759-602-65	IC CX-065B
IC102	8-759-145-58	IC UPC4558C
IC103	8-759-145-58	IC UPC4558C
IC201	8-759-800-49	IC LM6405A-154
IC202	8-759-174-11	IC UPC741C
IC203	8-759-145-57	IC UPC4557C
IC204	8-759-145-58	IC UPC4558C
IC205	8-759-145-58	IC UPC4558C
IC206	8-759-145-57	IC UPC4557C
IC207	8-759-145-58	IC UPC4558C
IC208	8-759-145-58	IC UPC4558C
J901	1-507-813-00	JACK
M901	1-541-219-00	MOTOR (MD)
M902	1-541-218-00	MOTOR (TONEARM DRIVE)
L201	1-407-177-XX	MICRO INDUCTOR 470UH
L202	1-407-169-XX	MICRO INDUCTOR 100UH
L203	1-407-169-XX	MICRO INDUCTOR 100UH
L204	1-407-169-XX	MICRO INDUCTOR 100UH

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "♣" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.

MF:μF, PF:μF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
PL901	1-518-343-72	LAMP, PILOT
Q101	8-729-612-77	TRANSISTOR 2SA1027R
Q102	8-729-663-47	TRANSISTOR 2SC1364
Q103	8-729-663-47	TRANSISTOR 2SC1364
Q104	8-729-141-42	TRANSISTOR 2SD414-R
Q105	8-729-154-83	TRANSISTOR 2SB548-R
Q106	8-729-141-42	TRANSISTOR 2SD414-R
Q107	8-729-154-83	TRANSISTOR 2SB548-R
Q108	8-729-141-42	TRANSISTOR 2SD414-R
Q109	8-729-154-83	TRANSISTOR 2SB548-R
Q110	8-729-663-47	TRANSISTOR 2SC1364
Q111	8-729-612-77	TRANSISTOR 2SA1027R
Q112	8-729-141-42	TRANSISTOR 2SD414-R
Q113	8-729-663-47	TRANSISTOR 2SC1364
Q114	8-729-663-47	TRANSISTOR 2SC1364
Q115	8-729-663-47	TRANSISTOR 2SC1364
Q116	8-729-154-83	TRANSISTOR 2SB548-R
Q201	8-729-612-77	TRANSISTOR 2SA1027R
Q202	8-729-612-77	TRANSISTOR 2SA1027R
Q203	8-729-663-47	TRANSISTOR 2SC1364
Q204	8-729-663-47	TRANSISTOR 2SC1364
Q205	8-729-663-47	TRANSISTOR 2SC1364
Q206	8-729-663-47	TRANSISTOR 2SC1364
Q211	8-729-141-42	TRANSISTOR 2SD414-R
Q212	8-729-154-83	TRANSISTOR 2SB548-R
Q213	8-729-224-61	TRANSISTOR 2SK246
Q214	8-729-612-77	TRANSISTOR 2SA1027R
Q215	8-729-663-47	TRANSISTOR 2SC1364
Q216	8-729-663-47	TRANSISTOR 2SC1364
Q217	8-729-224-61	TRANSISTOR 2SK246
Q218	8-729-224-61	TRANSISTOR 2SK246
Q219	8-729-141-42	TRANSISTOR 2SD414-R
Q220	8-729-154-83	TRANSISTOR 2SB548-R
Q221	8-729-612-77	TRANSISTOR 2SA1027R
Q223	8-729-141-42	TRANSISTOR 2SD414-R
Q401	8-729-101-01	TRANSISTOR PH101
Q402	8-729-101-01	TRANSISTOR PH101
Q801	8-729-141-42	TRANSISTOR 2SD414-R
Q802	8-729-141-42	TRANSISTOR 2SD414-R
Q803	8-729-154-83	TRANSISTOR 2SB548-R
Q804	8-729-154-83	TRANSISTOR 2SB548-R
Q901	8-729-224-61	TRANSISTOR 2SK246
Q902	8-729-663-47	TRANSISTOR 2SC1364
Q903	8-729-663-47	TRANSISTOR 2SC1364
Q904	8-729-663-47	TRANSISTOR 2SC1364

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R101	1-247-807-00	CARBON	100	5%	1/6W
R102	1-247-887-00	CARBON	220K	5%	1/6W
R103	1-247-855-00	CARBON	10K	5%	1/6W
R104	1-247-855-00	CARBON	10K	5%	1/6W
R105	1-247-855-00	CARBON	10K	5%	1/6W
R106	1-247-867-00	CARBON	33K	5%	1/6W
R107	1-247-855-00	CARBON	10K	5%	1/6W
R108	1-214-779-00	METAL	120K	1%	1/4W
R109	1-214-767-00	METAL	39K	1%	1/4W
R111	1-247-867-00	CARBON	33K	5%	1/6W
R112	1-247-815-00	CARBON	220	5%	1/6W
R113	1-247-873-00	CARBON	56K	5%	1/6W
R114	1-247-873-00	CARBON	56K	5%	1/6W
R115	1-247-855-00	CARBON	10K	5%	1/6W
R116	1-247-843-00	CARBON	3.3K	5%	1/6W
R117	1-247-843-00	CARBON	3.3K	5%	1/6W
R118	1-247-843-00	CARBON	3.3K	5%	1/6W
R119	1-247-843-00	CARBON	3.3K	5%	1/6W
R120	1-247-895-00	CARBON	470K	5%	1/6W
R121	1-247-895-00	CARBON	470K	5%	1/6W
R122	1-247-895-00	CARBON	470K	5%	1/6W
R123	1-247-895-00	CARBON	470K	5%	1/6W
R124	1-247-815-00	CARBON	220	5%	1/6W
R125	1-247-815-00	CARBON	220	5%	1/6W
R126	1-247-867-00	CARBON	33K	5%	1/6W
R127	1-247-867-00	CARBON	33K	5%	1/6W
R128	1-247-867-00	CARBON	33K	5%	1/6W
R129	1-247-867-00	CARBON	33K	5%	1/6W
R130	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R131	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R132	△ 1-217-399-00	FUSIBLE	100	5%	1/4W F
R134	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R135	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R136	1-244-877-00	CARBON	1.5K	5%	1/2W
R137	1-244-877-00	CARBON	1.5K	5%	1/2W
R138	1-247-843-00	CARBON	3.3K	5%	1/6W
R139	1-247-843-00	CARBON	3.3K	5%	1/6W
R140	1-247-853-00	CARBON	8.2K	5%	1/6W
R141	1-247-853-00	CARBON	8.2K	5%	1/6W
R142	1-247-855-00	CARBON	10K	5%	1/6W
R143	1-247-855-00	CARBON	10K	5%	1/6W
R144	1-247-875-00	CARBON	68K	5%	1/6W
R145	1-247-879-00	CARBON	100K	5%	1/6W
R146	1-247-879-00	CARBON	100K	5%	1/6W
R147	1-247-879-00	CARBON	100K	5%	1/6W
R148	△ 1-217-399-00	FUSIBLE	100	5%	1/4W F

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "△" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (△-△△△-△△△-XX or △-△△△-△△△-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μF , PF: μpF .

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R205	1-247-825-00	CARBON	560	5%	1/6W
R207	1-247-831-00	CARBON	1K	5%	1/6W
R208	1-247-831-00	CARBON	1K	5%	1/6W
R209	1-247-807-00	CARBON	100	5%	1/6W
R210	1-247-807-00	CARBON	100	5%	1/6W
R211	1-247-831-00	CARBON	1K	5%	1/6W
R212	1-247-831-00	CARBON	1K	5%	1/6W
R213	1-247-831-00	CARBON	1K	5%	1/6W
R214	1-247-831-00	CARBON	1K	5%	1/6W
R215	1-247-831-00	CARBON	1K	5%	1/6W
R216	1-247-831-00	CARBON	1K	5%	1/6W
R217	1-247-831-00	CARBON	1K	5%	1/6W
R218	1-247-831-00	CARBON	1K	5%	1/6W
R219	1-247-831-00	CARBON	1K	5%	1/6W
R220	1-247-831-00	CARBON	1K	5%	1/6W
R221	1-247-831-00	CARBON	1K	5%	1/6W
R222	1-247-851-00	CARBON	6.8K	5%	1/6W
R223	1-247-807-00	CARBON	100	5%	1/6W
R224	1-247-867-00	CARBON	33K	5%	1/6W
R225	1-247-867-00	CARBON	33K	5%	1/6W
R226	1-247-855-00	CARBON	10K	5%	1/6W
R227	1-247-855-00	CARBON	10K	5%	1/6W
R228	1-247-847-00	CARBON	4.7K	5%	1/6W
R229	1-247-847-00	CARBON	4.7K	5%	1/6W
R230	1-247-847-00	CARBON	4.7K	5%	1/6W
R231	1-247-847-00	CARBON	4.7K	5%	1/6W
R232	1-247-831-00	CARBON	1K	5%	1/6W
R233	1-247-831-00	CARBON	1K	5%	1/6W
R234	1-247-855-00	CARBON	10K	5%	1/6W
R235	1-247-855-00	CARBON	10K	5%	1/6W
R236	1-247-855-00	CARBON	10K	5%	1/6W
R237	1-247-855-00	CARBON	10K	5%	1/6W
R238	1-247-867-00	CARBON	33K	5%	1/6W
R239	1-247-855-00	CARBON	10K	5%	1/6W
R240	1-247-831-00	CARBON	1K	5%	1/6W
R241	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R242	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R243	1-247-887-00	CARBON	220K	5%	1/6W
R244	1-247-878-00	CARBON	91K	5%	1/6W
R245	1-247-879-00	CARBON	100K	5%	1/6W
R246	△ 1-212-875-00	FUSIBLE	56	5%	1/4W F
R247	△ 1-212-875-00	FUSIBLE	56	5%	1/4W F
R248	1-247-887-00	CARBON	220K	5%	1/6W
R249	1-247-889-00	CARBON	270K	5%	1/6W
R250	1-247-889-00	CARBON	270K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R251	1-247-899-00	CARBON	680K	5%	1/6W
R252	1-247-899-00	CARBON	680K	5%	1/6W
R253	1-247-887-00	CARBON	220K	5%	1/6W
R254	1-247-825-00	CARBON	560	5%	1/6W
R255	1-247-873-00	CARBON	56K	5%	1/6W
R256	1-247-831-00	CARBON	1K	5%	1/6W
R257	1-247-879-00	CARBON	100K	5%	1/6W
R258	1-247-863-00	CARBON	22K	5%	1/6W
R259	1-247-863-00	CARBON	22K	5%	1/6W
R260	1-247-879-00	CARBON	100K	5%	1/6W
R261	1-247-863-00	CARBON	22K	5%	1/6W
R262	1-247-855-00	CARBON	10K	5%	1/6W
R263	1-247-855-00	CARBON	10K	5%	1/6W
R264	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R265	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R266	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R267	1-247-867-00	CARBON	33K	5%	1/6W
R268	1-247-867-00	CARBON	33K	5%	1/6W
R269	1-247-855-00	CARBON	10K	5%	1/6W
R270	1-247-855-00	CARBON	10K	5%	1/6W
R271	1-247-855-00	CARBON	10K	5%	1/6W
R272	1-247-879-00	CARBON	100K	5%	1/6W
R273	1-247-867-00	CARBON	33K	5%	1/6W
R274	1-247-879-00	CARBON	100K	5%	1/6W
R275	1-247-855-00	CARBON	10K	5%	1/6W
R276	1-247-855-00	CARBON	10K	5%	1/6W
R277	1-247-879-00	CARBON	100K	5%	1/6W
R278	1-247-839-00	CARBON	2.2K	5%	1/6W
R279	1-247-879-00	CARBON	100K	5%	1/6W
R280	1-247-831-00	CARBON	1K	5%	1/6W
R281	1-247-859-00	CARBON	15K	5%	1/6W
R282	1-247-859-00	CARBON	15K	5%	1/6W
R283	1-247-855-00	CARBON	10K	5%	1/6W
R284	1-247-855-00	CARBON	10K	5%	1/6W
R285	1-247-867-00	CARBON	33K	5%	1/6W
R286	1-247-873-00	CARBON	56K	5%	1/6W
R287	1-247-867-00	CARBON	33K	5%	1/6W
R289	1-247-867-00	CARBON	33K	5%	1/6W
R290	1-247-895-00	CARBON	470K	5%	1/6W
R291	1-247-835-00	CARBON	1.5K	5%	1/6W
R292	1-247-873-00	CARBON	56K	5%	1/6W
R293	1-247-831-00	CARBON	1K	5%	1/6W
R294	1-247-879-00	CARBON	100K	5%	1/6W
R295	1-247-879-00	CARBON	100K	5%	1/6W
R296	1-247-863-00	CARBON	22K	5%	1/6W

NOTE:

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- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
MF: μF , PF: μpF .

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F: nonflammable

COILS

- MMH: mH, UH: μH

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R297	1-247-863-00	CARBON	22K	5%	1/6W
R298	1-247-863-00	CARBON	22K	5%	1/6W
R299	1-247-855-00	CARBON	10K	5%	1/6W
R300	1-247-855-00	CARBON	10K	5%	1/6W
R301	1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R302	1-247-883-00	CARBON	150K	5%	1/6W
R303	1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R304	1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R305	1-247-831-00	CARBON	1K	5%	1/6W
R306	1-247-867-00	CARBON	33K	5%	1/6W
R307	1-247-843-00	CARBON	3.3K	5%	1/6W
R308	1-247-895-00	CARBON	470K	5%	1/6W
R309	1-247-855-00	CARBON	10K	5%	1/6W
R310	1-247-839-00	CARBON	2.2K	5%	1/6W
R311	1-214-721-00	METAL	470	1%	1/4W
R312	1-214-745-00	METAL	4.7K	1%	1/4W
R313	1-214-745-00	METAL	4.7K	1%	1/4W
R314	1-214-777-00	METAL	100K	1%	1/4W
R315	1-214-777-00	METAL	100K	1%	1/4W
R316	1-214-741-00	METAL	3.3K	1%	1/4W
R317	1-214-777-00	METAL	100K	1%	1/4W
R318	1-214-777-00	METAL	100K	1%	1/4W
R319	1-214-777-00	METAL	100K	1%	1/4W
R320	1-214-753-00	METAL	10K	1%	1/4W
R321	1-214-753-00	METAL	10K	1%	1/4W
R322	1-247-903-00	CARBON	1M	5%	1/6W
R323	1-247-815-00	CARBON	220	5%	1/6W
R324	1-247-815-00	CARBON	220	5%	1/6W
R325	1-247-815-00	CARBON	220	5%	1/6W
R326	1-247-815-00	CARBON	220	5%	1/6W
R501	1-247-825-00	CARBON	560	5%	1/6W
R502	1-247-825-00	CARBON	560	5%	1/6W
R503	1-247-825-00	CARBON	560	5%	1/6W
R504	1-247-825-00	CARBON	560	5%	1/6W
R505	1-247-801-00	CARBON	56	5%	1/6W
R901	1-247-847-00	CARBON	4.7K	5%	1/6W
R902	1-247-903-00	CARBON	1M	5%	1/6W
R903	1-247-871-00	CARBON	47K	5%	1/6W
R904	1-247-887-00	CARBON	220K	5%	1/6W
R905	1-247-879-00	CARBON	100K	5%	1/6W
R906	1-247-847-00	CARBON	4.7K	5%	1/6W
R907	1-247-855-00	CARBON	10K	5%	1/6W
R908	1-247-895-00	CARBON	470K	5%	1/6W
R909	1-247-887-00	CARBON	220K	5%	1/6W
R910	1-247-825-00	CARBON	560	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
RV101	1-228-239-00	RES, ADJ, METAL GLAZE 50K (SPEED 45RPM)
RV102	1-228-238-00	RES, ADJ, METAL GLAZE 20K (SPEED 33RPM)
RV103	1-226-234-00	RES, ADJ, CARBON 2K-B (GAIN)
RV104	1-226-234-00	RES, ADJ, CARBON 2K-B (GAIN)
RV105	1-226-236-00	RES, ADJ, CARBON 10K-B (OFFSET)
RV106	1-226-236-00	RES, ADJ, CARBON 10K-B (OFFSET)
RV201	1-226-236-00	RES, ADJ, CARBON 10K-B (V.OFFSET)
RV202	1-226-236-00	RES, ADJ, CARBON 10K-B (TONEARM ANGLE 2)
RV203	1-228-542-00	RES, ADJ, METAL GLAZE 10K (H.OFFSET)
RV204	1-228-542-00	RES, ADJ, METAL GLAZE 10K (TONEARM ANGLE 1)
RV205	1-226-236-00	RES, ADJ, CARBON 10K-B (STYLUS FORCE)
RV206	1-228-542-00	RES, ADJ, METAL GLAZE 10K (STYLUS FORCE)
RY601	1-515-323-00	RELAY
S1	1-554-337-00	SWITCH (TONEARM POSITION BOARD)
S2	1-554-205-00	SWITCH, SLIDE (OPEN END)
S3	1-554-205-00	SWITCH, SLIDE (CLOSE END)
S4	1-553-909-00	SWITCH, PUSH (POWER)
S501	1-554-303-00	SWITCH, KEY BOARD (OPEN/CLOSE)
S502	1-554-303-00	SWITCH, KEY BOARD (START/STOP)
S503	1-554-303-00	SWITCH, KEY BOARD (ARM TRANSPORT TO RIGHT)
S504	1-554-303-00	SWITCH, KEY BOARD (ARM TRANSPORT TO LEFT)
S505	1-554-303-00	SWITCH, KEY BOARD (ARM RIFTER)
S506	1-554-303-00	SWITCH, KEY BOARD (REPEAT)
S507	1-554-303-00	SWITCH, KEY BOARD (SPEED 33/45)
S901	1-552-535-00	(E).....SWITCH, POWER & VOLTAGE CHANGE
T901	1-446-851-31	(E).....TRANSFORMER, POWER
T901	1-447-124-00	(AEP,UK).....TRANSFORMER, POWER
T901	1-447-125-00	(US,Canadian)....TRANSFORMER, POWER
X201	1-527-532-00	OSCILLATOR, CERAMIC

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.

MF:μF, PF:μF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

• F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

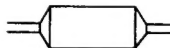
MYLAR CAPACITORS

RATING											
CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.
	PART No.	PART No.	PART No.		PART No.	PART No.	PART No.		PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-220-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	—	—
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	—	—
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	—	—
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	—	—
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

RATING → : Use the high voltage rated one.							
CAP. (μF)	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01					→	→	1-131-396-00
0.015					→	→	1-131-397-00
0.022					→	→	1-131-398-00
0.033					→	→	1-131-399-00
0.047					→	→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	—	—	—	—	1-131-412-00	→	1-131-406-00
0.68	—	—	—	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	—	—	1-131-418-00	—	1-131-413-00	→	1-131-408-00
1.5	—	1-131-421-00	—	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	—	1-131-419-00	—	1-131-414-00	1-131-355-00	1-131-349-00
3.3	—	1-131-422-00	—	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	—	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	—	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	—
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	—			
68	1-131-394-00	1-131-388-00	—	—			
100	1-131-395-00	—	—	—			



TANTALUM CAPACITORS

RATING						
CAP. (μF)	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			—	—	1-131-262-00	1-131-278-00
0.33			—	—	1-131-263-00	1-131-279-00
0.47			1-131-169-00	—	1-131-264-00	1-131-280-00
0.68			—	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	—	1-131-266-00	1-131-282-00
1.5		1-131-250-00	—	—	1-131-267-00	1-131-283-00
2.2		—	—	1-131-259-00	1-131-268-00	1-131-284-00
3.3		—	1-131-255-00	—	1-131-269-00	—
4.7		1-131-251-00	1-131-171-00	—	1-131-270-00	—
6.8		—	—	1-131-260-00	1-131-271-00	—
10	—	—	1-131-256-00	—	1-131-272-00	—
15	—	1-131-252-00	—	1-131-261-00		
22	—	—	1-131-257-00	—		
33	1-131-176-00	1-131-253-00	1-131-173-00	—		
47	1-131-288-00	1-131-174-00	—	—		
100	1-131-177-00					

ELECTROLYTIC CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	—	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	—
3300	1-121-661-00	1-123-075-00	1-123-071-00	—	—	—

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	—	—	—	—
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-726-00	—	1-123-028-00
3.3	1-121-995-00	—	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	—	—
47	1-123-251-00	1-121-919-00	—	—
100	1-123-084-00	—	—	—

CERAMIC CAPACITORS

CAP. (pF)	RATING						
	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.				
	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

HARDWARE NOMENCLATURE

Screw:

P 3 x 10

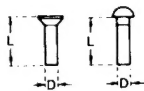
L: Length in mm

D: Diameter in mm

Type of head

Indicated slotted-head only.

Unless otherwise indicated, it means cross-recessed head (Phillips type).



Nut, Washer, Retaining ring:

N 3

Diameter of usable screw or shaft

Reference designation

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

